F I N A

INTERNATIONAL

SITE CUSTOMIZATION MANUAL

United States Agency
for International Development

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1. Introduction

1.1. Overview and Applicability

The purpose of the United States Agency for International Development (USAID) FinA Site Customization Manual is to guide the System Manager with step-by-step instructions for the customization and future updating of the system for a specific banking environment. The manual is designed to fully equip the System Manager, the "Super User" who has full access to the FinA system, and is the person in charge of executing all user configurable changes in FinA.

1.2. FinA Users

FinA was developed to assist Governments in the oversight of the banking system and can be used by the off-site, on-site, liquidation, and licensing staff. FinA can also be used for the supervision of other financial institutions and in other government departments that analyze financial inputs and generate financial outputs such as the macroeconomic departments of the Central Bank.

This manual is also intended to assist the Senior Supervision Staff, the System Administrator, and the Programmers who can also consult this manual in addition to the manuals geared toward their specific group. For a more complete orientation on the FinA system, please refer to the manuals for: Off-site Examiner, Installation & Configuration, and Programmers.

1.3. System Manager Skill Requirements

The System Manager should have experience working with spreadsheets, an understanding of financial data structure, and an advanced knowledge of financial analysis as it is related to bank supervision.

FinA can be customized to support any Java-supported language, local reporting requirements, and regulatory environments. FinA is unique in that it does not require a programmer to modify the returns or output reports when regulations and standards change. The System Manager is able to rebuild Formulas and data structure at the user level according to the new requirements.

1.4. Hardware and Software Requirements

FinA is written in Java and has a three-tiered system architecture. (See the *Installation & Configuration Manual* for software and hardware requirements).

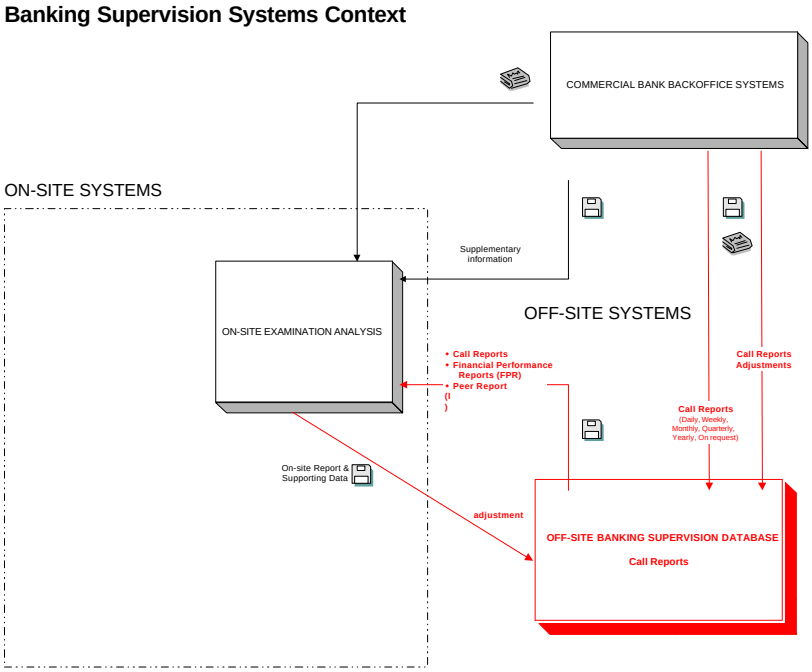
2. FinA Functional System Design

2.1. Overview of the Business Process

One of the key components of effective bank supervision is the review and analysis of returns (call reports that banks are required to submit periodically to the Supervisor). The content, format, and periodicity of these returns are defined in the banking laws and regulations of the country. The goal of the FinA software is to support the off-site banking supervision activities of the Supervisor. These activities include the processing, analysis, and evaluation of financial reports submitted by banks operating in the domestic economy.

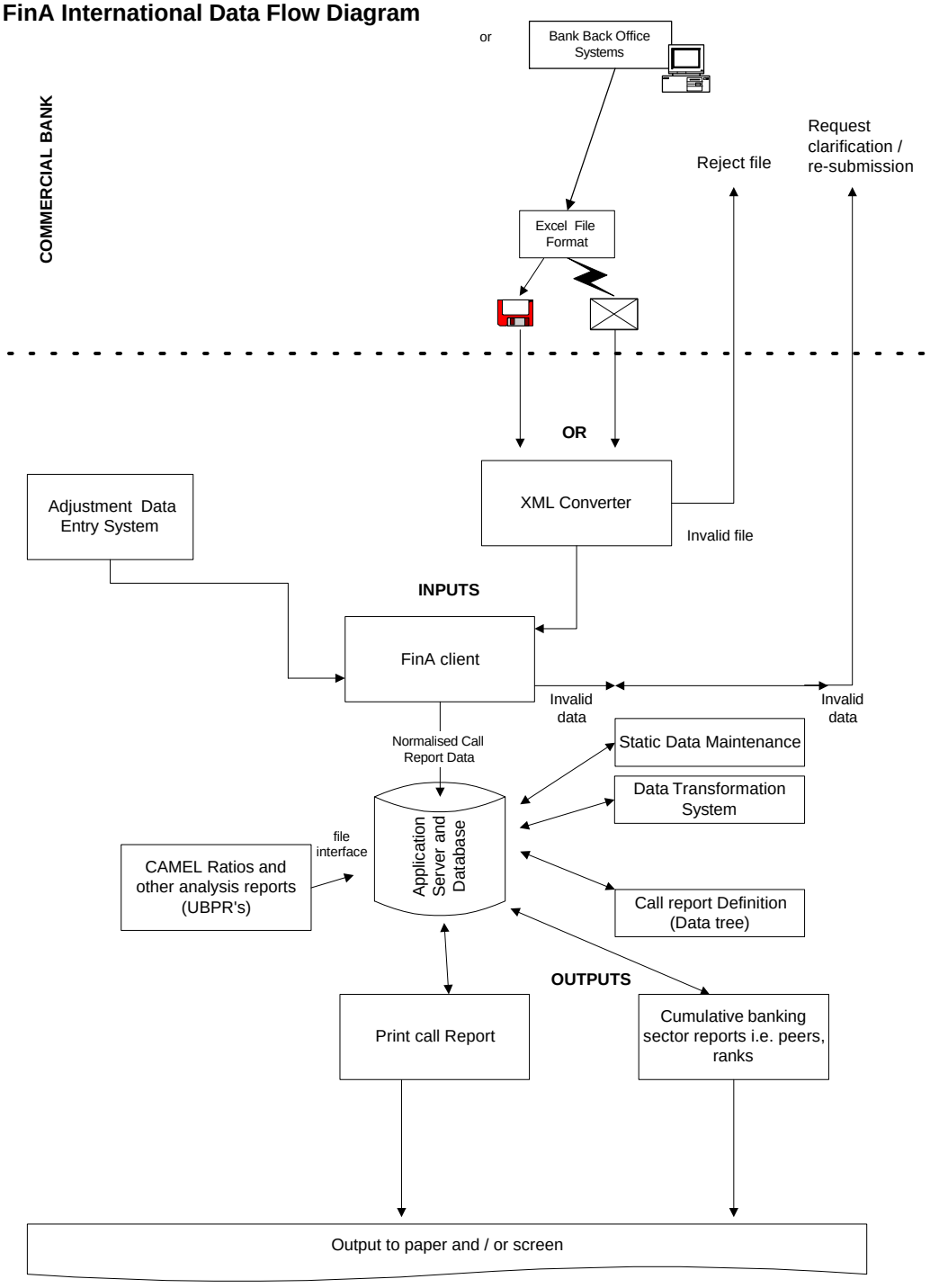
Financial data from credit institutions i.e., banks and credit unions is reported to a regulator in a pre-defined format. The information is analyzed by the regulator to ensure compliance with regulation, to assess the financial stability of the institution, and to analyze economic trends.

2.2. Business Process Diagram



2.3. Data Flow Diagrams

FinA International Data Flow Diagram



3. Getting Started with FinA

3.1. Accessing the Main Menu

The steps below enable the user to gain access to the system main menu.

1. Turn PC on
2. Start SQL server
3. Start FinA server
4. Start FinA client
5. The login form displayed is shown in *Figure 3.1.1*

The default shortcut for the FinA server is Start/Program/FinA International/FinA Server and the default shortcut for the FinA client is Start/Program/FinA International/FinA2 Client.

FIGURE 3.1.1, FINA2 LOGIN

Required Fields

Login: Enter your user name in the login field
Password: Enter your password in the password field

Note: The user name and password are assigned by the FinA System Administrator.

Optional Fields

Language: Click on the drop-down list and then select the language

Click **OK**

FinA will then verify the name and password. If the system cannot verify the information that has been entered, the error message, "User name or password is not valid" will appear. If this occurs, Click on **OK** and re-enter the information. The FinA menu should appear with the menus that are accessible to the user based on his or her access rights.

Note: If a time out error screen appears when logging into FinA, please contact the System Administrator, who will ensure that the settings for the application server are correct.

Note: The user has unlimited number of login attempts. If you are unable to log in after several tries, please contact the System Administrator and confirm the user ID and password.

3.2. Traveling Around the FinA System

This chapter describes how menus and submenus and how to sort data, exit the system and use icons, drop-down menus, and data entry fields.

3.2.1. Using Drop-Down Menus

Drop-down boxes usually have triangular pointers pointing downward inside the box. Click on the box and a list of options will appear. Highlight and Click on the option, and the it will be inserted into the open field. See the example on *Figure 3.2.1.1*:

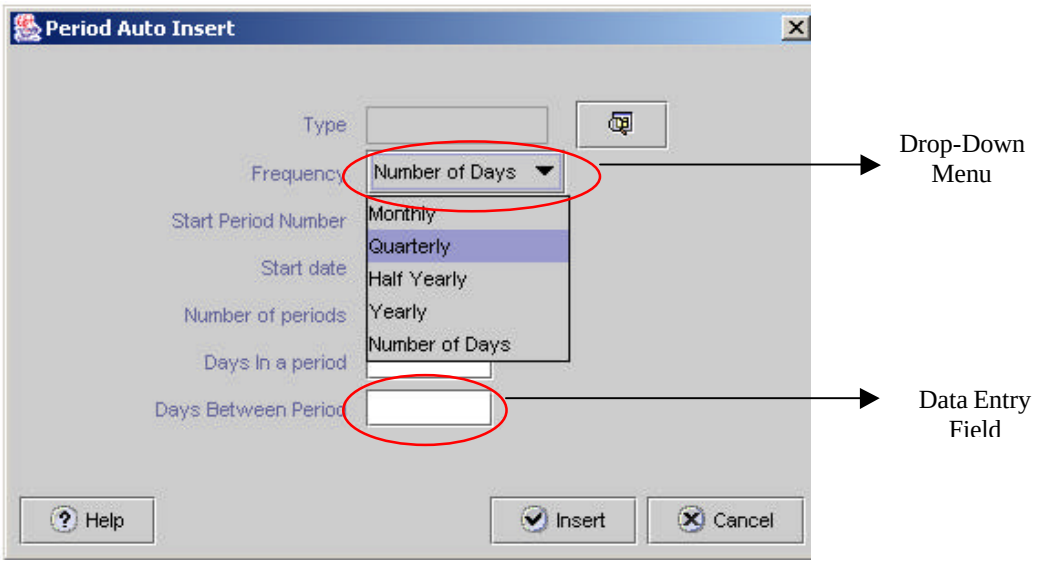


FIGURE 3.2.1.1, PERIOD AUTO INSERT

3.2.2. Data Entry Fields

For **open fields**, which require data to be entered, **Click on the open field and type** the desired information. When finished, **hit TAB** to move to the next field **or Shift-TAB** to go to the previous field. See *Figure 3.2.1.1*.

Entering information in input fields may or may not be required. The system will display an error message if there is an attempt to close a dialog box without filling in all required fields.

3.2.3. Sorting Displayed Data

Certain screens allow users to sort fields based on the heading of the field (in *Figure 3.2.3.1* the headings are "Code", "Description", and "Type"). To sort data by the heading of a field, Click on the intended field heading and the data will sort the fields by category and in ascending alphabetical or numerical order. See the example shown in *Figure 3.2.3.1*.

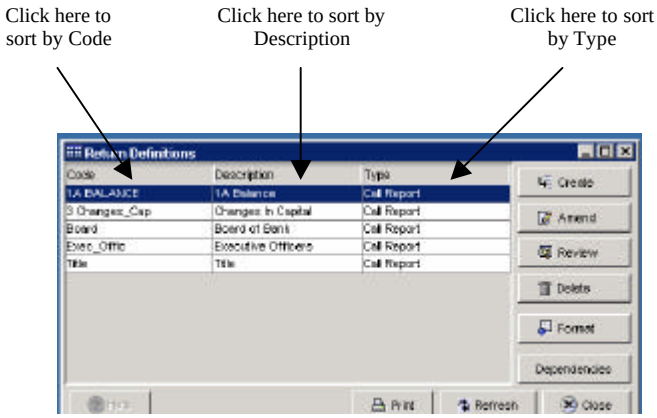


FIGURE 3.2.3.1, RETURN DEFINITIONS

3.2.4. Main Menus, Menu Items, and Input Fields Relationship

The Main menu consists of the broad headings that appear after login (i.e., File, Banks, etc.). If you Click on one of the headings under the main menu, more subcategories under this heading will appear. These subcategories are called menu items. Menu items are more detailed groupings of data and usually take the form of screens which offer additional choices or access to data input screens. Input screens are the lowest level of this multi-layer system and provide the user with the ability to add new data or to modify existing data.

3.2.5. Exiting the System

Click on the **File** menu and then on the menu item **Exit** to exit the FinA System. Alternatively, **Click** [X] **icon** on the right top corner of the FinA screen. The FinA system has screen-retaining features. Formatting changes are saved when the user logs out of the system.

3.2.6. Using Icons and Buttons

Buttons are shaded boxes that have symbols or text inside. They represent a specific action. Click on the button and the action will be performed.

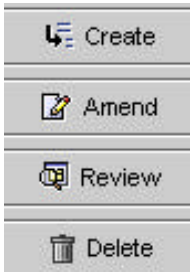
A list of standard buttons and the action that they represent is provided below:

 Browser button. Click on this button and a list of options will appear. Select your choice and Click on the relevant button depending on the context of the operation, (i.e., **OK, Insert, Save** etc.).

Print button. Click on this button and FinA will print the information on the screen.

Refresh button. Click on this button and information that is displayed on the screen is updated. This is very useful when several users work on the same module simultaneously.

Filter button. Click on this button to display information based on the conditions that have been defined. Once the button is Clicked, the screen will present the results on the next screen.



Create button allows the user to create the object.

Amend button allows the user to edit a selected object.

Review button shows details of the selected object.

Delete button deletes the selected object.

Disable button disables a certain FinA function. This is very useful in cases where you do not want to apply this function for the current period, but cannot delete it because it is needed to maintain historical data.

UP/DOWN buttons are used to move elements of a tree (menu, Metadata) up or down a level.

4. Menus and How They Work

4.1. Basic Outlines

The FinA menus are listed on the menu toolbar, which is located at the top of the screen. Each menu contains one or several menu items. The menu items may be actions (commands) or applications. Some of the menu items have icons next to them, which allow the user to quickly associate the command with the icon. See *Figure 4.1.1*.

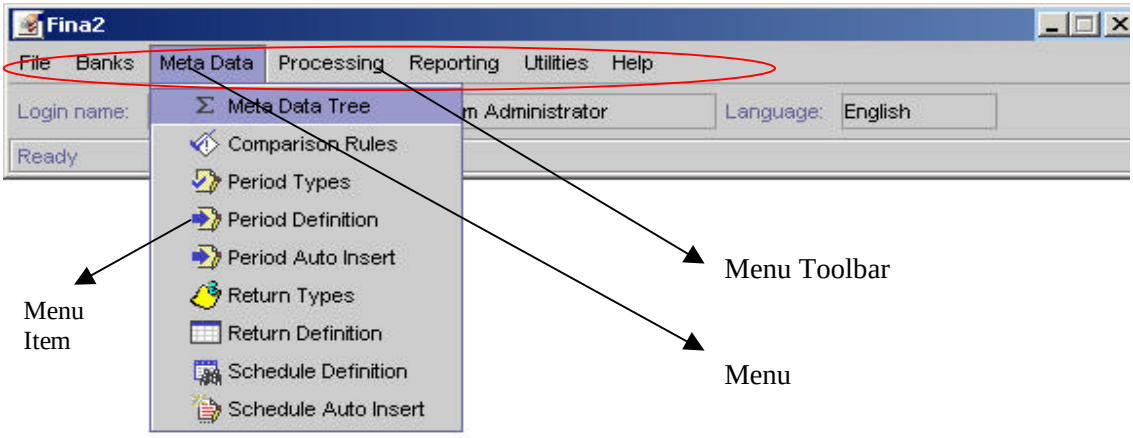


FIGURE 4.1.1, FINA MAIN MENU

4.2. FinA Menus and Menu Items

An example of the default FinA menu screen for a user with full access is shown in *Figure 4.2.1*. However, FinA is fully customizable and may, therefore, be modified to meet the Supervisor's specific requirements.

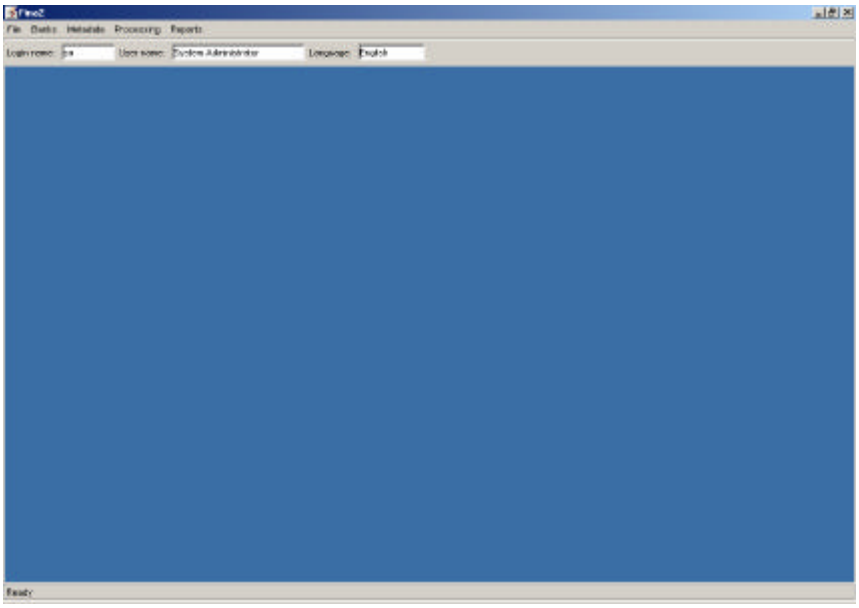


FIGURE 4.2.1, FINA DEFAULT MENU SCREEN

4.2.1. File

The File menu contains the following menu items: Menu Tree, Language, User Manager, and Exit. See *Figure 4.2.1.1*.

FIGURE 4.2.1.1, FILE MENU

4.2.1.1. Menu Tree

The item Menu Tree allows the user to view, set-up, and modify menus. Click on **File/Menu** and the screen in *Figure 4.2.1.1.1* appears:

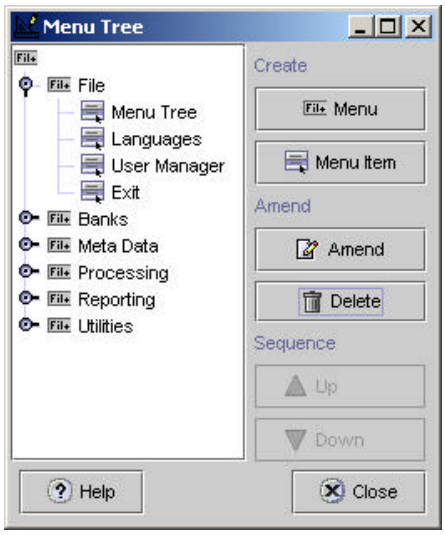


FIGURE 4.2.1.1.1, MENU TREE

To add a menu, select a location on the menu tree and Click **Menu** under the "Create" heading. The screen on *Figure 4.2.1.1.2* will appear:

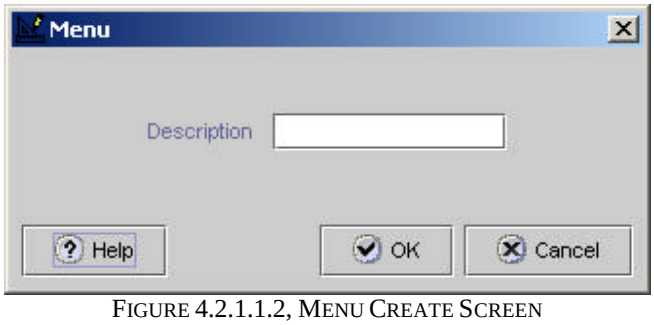


FIGURE 4.2.1.1.2, MENU CREATE SCREEN

Then enter a menu name in the Description field and Click on **OK**.

To add a menu item, select a location on the menu tree and Click on **Menu Item** under the "Create" heading. The screen on *Figure 4.2.1.1.3* opens.

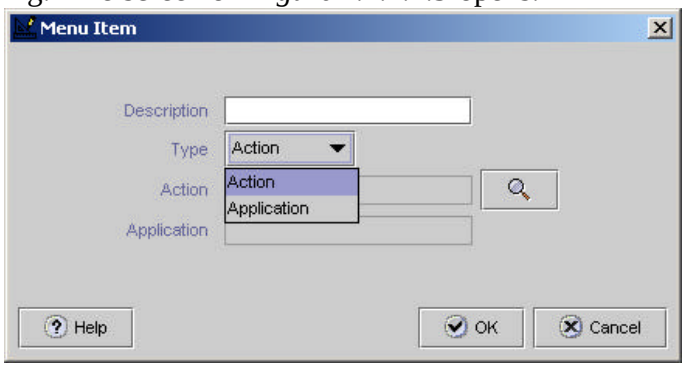


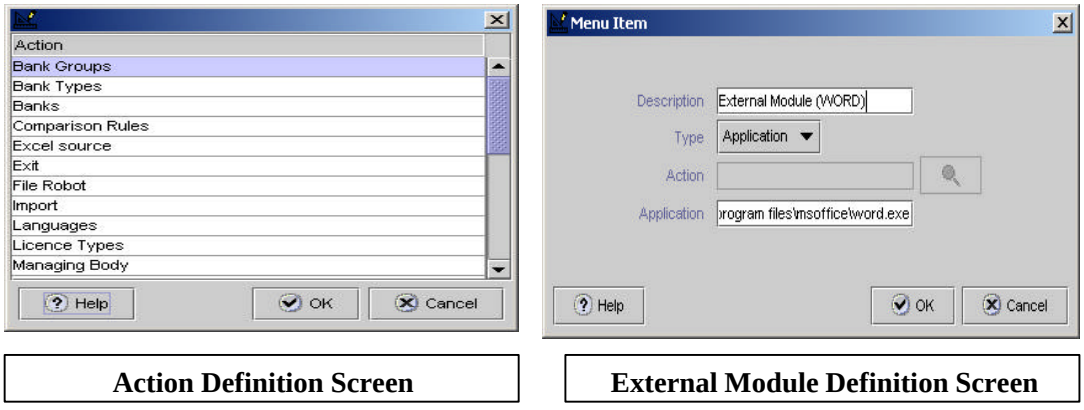
FIGURE 4.2.1.1.3, MENU ITEM CREATE SCREEN

Enter a name for the menu item in the Description field. Then select the type (Action or Application) from the drop-down menu list and Click on **OK**.

Actions are **predefined internal modules** of FinA. Use the Browser button to select from a list of Actions. The Actions currently defined in FinA include: Bank Groups/Bank Types/ Banks/Comparison Rules/ Excel Source/Exit/File Robot/Formulas/Import/ Languages/ License Types/Managing Body/Menu Tree/Metadata Tree/Period Auto Insert/Period Types/Periods/Regions/Report Designer/Return Definition/ Return Manager/Return Statuses/Return Types/Schedule Auto Insert/Schedules/Users/Audit Trail

Applications are **external modules** such as Visual Basic, Java, etc. For example, to access an MS Word program from your hard drive, type the location of the Word program in the Application field, i.e.,"C:\Program\Files\Microsoft Office\Office10\WINWORD.EXE"

Examples of Action and Application definition screens are displayed on *Figure 4.2.1.1.4*:



Action Definition Screen | **External Module Definition Screen**

FIGURE 4.2.1.1.4, ACTION AND APPLICATION DEFINITION SCREENS

4.2.1.2.User Manager

The User Manager organizes the users and access rights in a tree structure. To access the User Manager Click on **File/User Manager** and a screen similar to the one shown on *Figure 4.2.1.2.1* will appear. Users can be treated individually or put into groups with assigned, specific roles. In addition to the group rights, an individual user can be given additional access privileges.

FIGURE 4.2.1.2.1, USERS MENU ITEM SCREEN

To add a new user, indicate a place on the tree under the "User" folder and Click on the **User** button**.** The screen on *Figure 4.2.1.2.2* will appear.

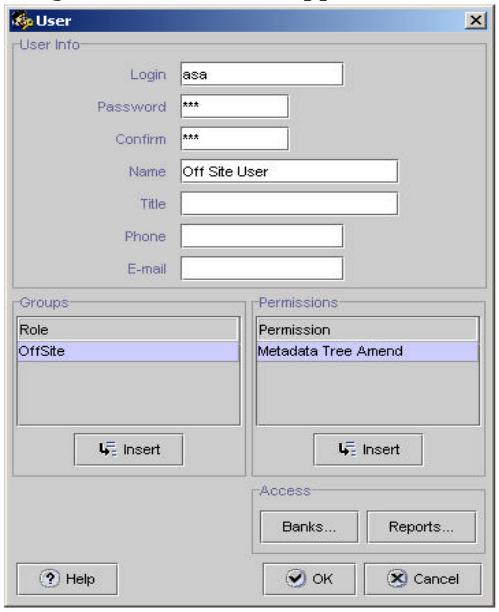


FIGURE 4.2.1.2.2, USER CREATE SCREEN

Input background information on the user in the open fields. To assign group rights to the user, Click on the **Insert** button under the "Group" heading to place the user in an established group. Select the group and then Click on **OK** and the user will then have the same rights as the other members of the group. To give the user additional rights than those assigned to the group, Click on the **Insert** button under the "Permission" heading on the User screen. Select the permission and then Click **OK.** The user will then have permission to perform that function in the FinA system.

Users can also be given rights that are limited to specific banks and/or bank reports. A user, for example, may have permission to review a specific report but not all reports. To grant a user the right to work on a particular report, the access rights must be defined for that report. To specify the Bank, Click on **Banks** under the "Access" heading on the User screen (See *Figure 4.2.1.2.2* above). The screen on *Figure 4.2.1.2.3* will open.

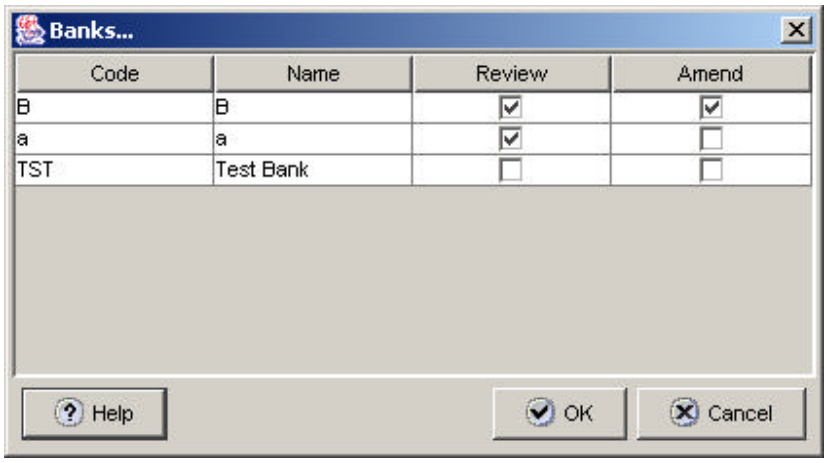


FIGURE 4.2.1.2.3, BANKS PERMISSION SCREEN

Check the appropriate review and/or amend boxes next to the banks for which the user has the permission to access bank returns. Then Click **OK**. To specify the reports for which the user has permission to review and/or amend, Click on **Reports** under the heading "Access" on the User screen. Then check the boxes for the reports that the user has access to and Click **OK**.

To add a new Group, indicate the place on the tree under the **Group** folder and Click on **Group**. The screen on *Figure 4.2.1.2.4* will open:

FIGURE 4.2.1.2.4, GROUP CREATE SCREEN

Input the name of the new group in the open field. Then Click on **Insert,** select the permission, and Click **OK**. Repeat until the group permissions are completed.

4.2.1.3. Language

Refer to the *Installation and Configuration Manual* for instructions on how to use this menu item.

4.2.1.4. Exit FinA

To exit FinA, Click on the **Exit FinA** menu item or Click on the **X**, which is located at the top right corner of each of the FinA screens.

4.2.2. Banks Menu

The word "Bank" in FinA is used generally and covers any financial entity (credit unions, investment companies, non-bank depositary institutions, etc). The menu items under the **Banks** menu are: Bank Types, Peer Groups, License Types, Bank List, Peer. The bank attributes are defined and modified through these menu items under the **Banks** menu.

4.2.2.1.Bank Types

The **Bank Types** menu item lists the types of financial institutions that are monitored by the FinA system: i.e., banks, exchange bureaus, credit unions, non-bank depository institutions, etc. The buttons function as described in Chapter 3.2.6, Using Icons and Buttons. A sample screen shot is shown on *Figure 4.2.2.1.1*.

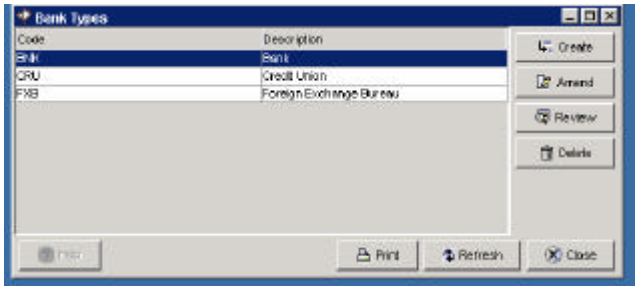


FIGURE 4.2.2.1.1, BANK TYPES

4.2.2.2. License Types

The **License Types** menu item is used to define and modify (add, delete, amend, and review) licenses for the financial institutions that are monitored by the FinA system. All buttons function as described in Chapter 3.2.6, Using Icons and Buttons. A sample screen shot is shown on *Figure 4.2.2.2.1*.

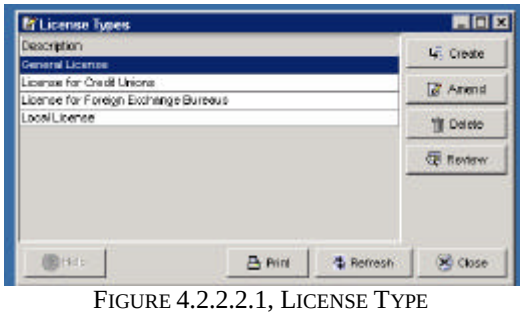


FIGURE 4.2.2.2.1, LICENSE TYPE

4.2.2.3. Peer Group

The Peer Group menu item allows all banks with similar characteristics to be grouped for comparison purposes. In the sample screen displayed in *Figure 4.2.2.3.1*, banks are grouped by asset size: small, medium, and large. All buttons work as described in Chapter 3.2.6, Using Icons and Buttons.

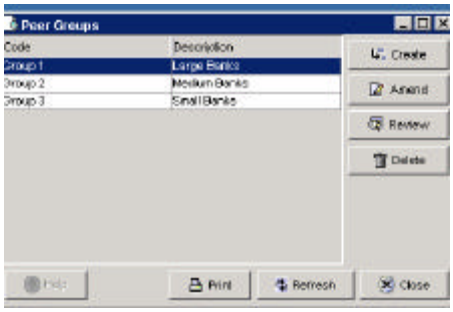


FIGURE 4.2.2.3.1, BANK GROUPS, PEER

4.2.2.4. Bank List

The **Bank List** menu item allows you to enter and manage (create, edit, review, or delete) bank information. All buttons function as described in Chapter 3.2.6, Using Icons and Buttons. To access bank information, select the bank and Click on **Review** and a screen similar to *Figure 4.2.2.4.1* will appear. To add a bank, Click on **Add Bank** and a similar screen will appear. Enter the information and Click **OK** and that bank and its information will be added to the bank list folder.

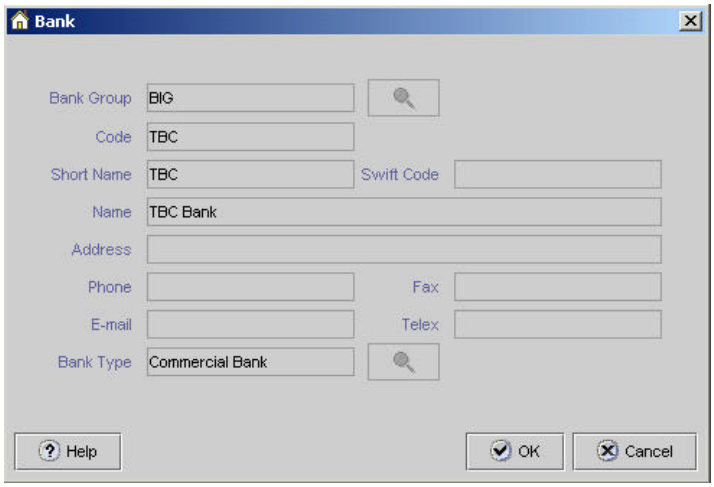


FIGURE 4.2.2.4.1, BANK INFORMATION

4.2.3. Metadata Menu

4.2.3.1. Metadata Tree Menu Item

The Metadata Tree (MDT) is a key element in FinA's design. The data received from the banks in the form of returns is organized in FinA in the form of a **MDT, a hierarchical**

structure that captures the interrelationships between the data items in the returns (call reports) submitted by banks. The MDT describes each return, the content of the returns and documents the relationship between the data items and the returns. The MDT organization facilitates the retrieval of data in the system and is especially useful for designing and generating output reports.

After you Click on **MDT** menu item, the screen on *Figure 4.2.3.1.1* will display.

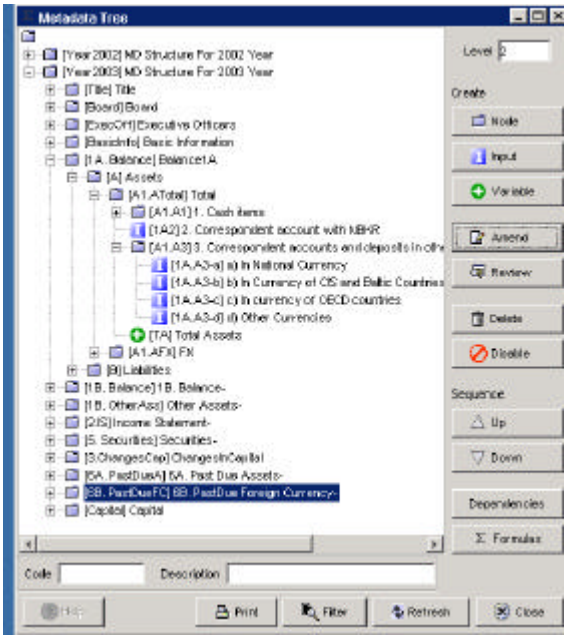


FIGURE 4.2.3.1.1, METADATA TREE

On the right of the screen are buttons that function as described in Chapter 3.2.6, Using Icons and Buttons. On the left of the screen is the MDT.

The MDT consists of nodes. Each row of the tree represents exactly one item of data or a node. A node can refer to the top of a sub-tree or to any of the levels (branches) of the tree. The end level of the MDT (leaves) may be a node, an input, or a variable.

4.2.3.1.1. Node

Nodes are the only items in the data tree that have branches. Nodes can include other nodes, inputs, and variables.

Nodes are marked with  symbol. The node can have a value, which is calculated as a sum, minimum, maximum, or average of the objects. Each node has its own record consisting of fields containing the following information: Code (any symbols and/or numbers); Description; Type (Numeric, Text); Required (checked)/or No(not required, unchecked).

Nodes can describe the following:

- a substructure
- a list
- a table name with column headings for any number of rows
- column headings

To create a new Node: point to the place on the tree where the node is to be located and Click on the **Node** button under the heading "Create." Fill in the code and the description fields. Click on the drop-down menu "Type" and select Numeric or Text.

The field **Evaluation Method** defines the method (None, SUM, MIN, MAX, or Average of nodes/inputs/variables) by which the value of the node is to be calculated (see *Figure 4.2.3.1.1.1*). The field should be set to **None** when it is not necessary to calculate the value of the node. If the node should be calculated, Click on the drop-down menu "Evaluation method" and select one of the above (i.e., None, SUM, Average, etc.). (See Chapter 5.1.4, Define Metadata Structure for details on building Formulas and the MDT).

Check the **Required** box if all returns should contain the node that you are defining. If the **Required** box is checked, then no return can be processed by FinA without this node. If the node is not required in the returns of all reporting institutions, this box should not be checked.

Once the node has been defined, Click on **OK** to include the node in the MDT.

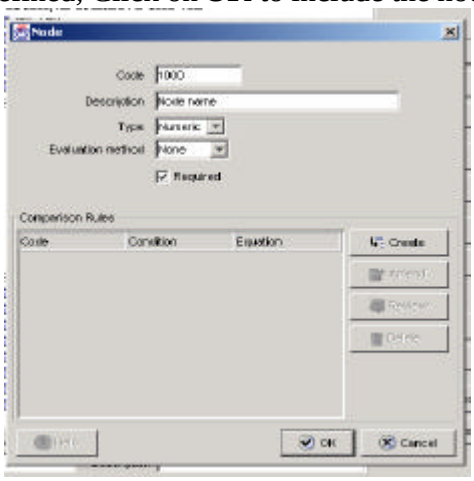


FIGURE 4.2.3.1.1.1, NODE CREATE

4.2.3.1.2. Inputs

Inputs are numeric or text items in the MDT taken directly from the bank returns (call reports). In FinA, each Input has its own record, which contains the following information: Code, Description, Type (Numeric, Text). **Inputs** in the MDT are marked with the symbol.

To create a new Input: Point to the place on the tree where the input will be located. Click on the **Input** button under the heading "Create". The screen on *Figure 4.2.3.1.2.1* opens. Fill in the Code and the Description fields. Select the **Type** from the drop-down menu. (See Chapter 5.1.4, Define Metadata Structure for details on building Formulas in the MDT). Click **OK** to include the **Input** in the tree and to return to the previous window.

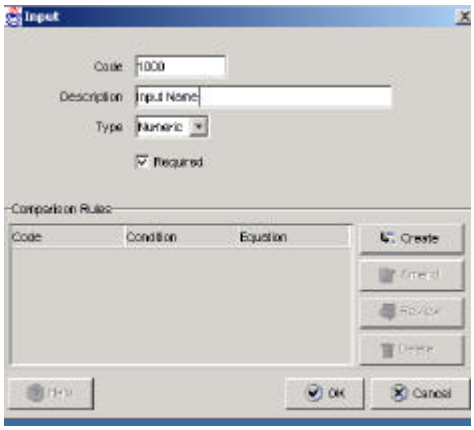


FIGURE 4.2.3.1.2.1, INPUT CREATE

4.2.3.1.3. Variables

Variables are items in the MDT that are calculated based on a specified Formula. A variable may be calculated based on one Formula or several Formulas (i.e., "if" and "then" statements). Each variable has its own record in FinA, which contains the following information: Code, Description, Equation. The variables in the MDT are marked with the symbol

To create a new variable, point to the place on the tree where the new variable will be located and Click on the **Variable** button under the heading "Create." The screen on *Figure 4.2.3.1.3.1* opens.

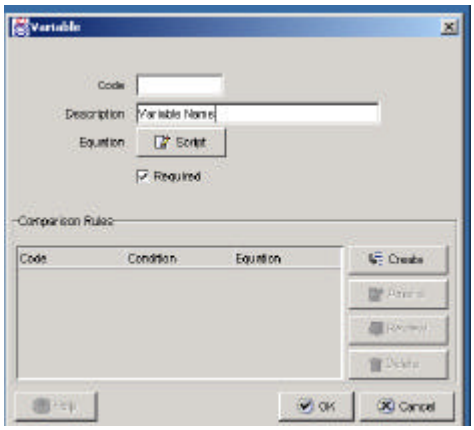


FIGURE 4.2.3.1.3.1, VARIABLE CREATE

Fill in the **Code** and **Description** fields, select the appropriate **Type** from the drop-down list, and check or uncheck the **Required** field. ***Note: You may also need to create a comparison rule. See instructions in Chapter 4.2.3.2, Comparison Rules for instructions as needed.***

4.2.3.1.4. Filter

To search for an item on the MDT, use the **Code** or **Description** fields at the bottom of the MDT screen (see *Figure 4.2.3.1.1*). Fill in either of these fields, Click **Enter,** and FinA will find the item on the MDT and highlight it.

4.2.3.1.5. Dependencies Button

Dependencies button is used for data structure control purposes. Highlight an item on the MDT and Click **Dependencies**. A screen that lists all items that depend on or use this item will open. An example is presented on *Figure 4.2.3.1.5.1*.

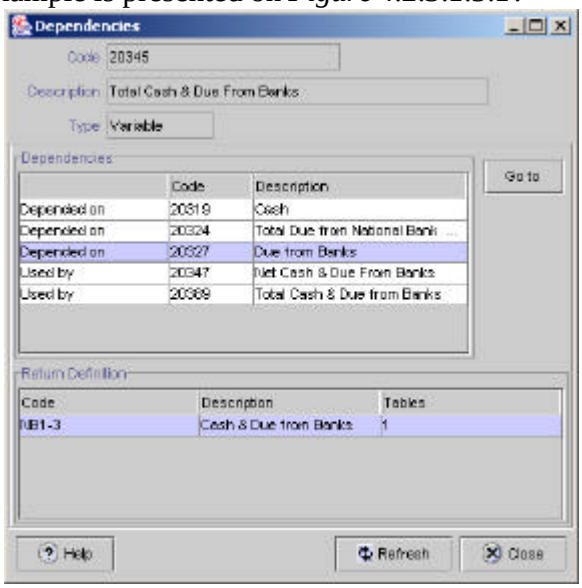


FIGURE 4.2.3.1.5.1, DEPENDENCIES

4.2.3.2. Comparison Rules

Comparison Rules is the second menu item under the **MDT** menu. Click on **Comparison Rules** and a screen similar to *Figure 4.2.3.2.1* will appear:

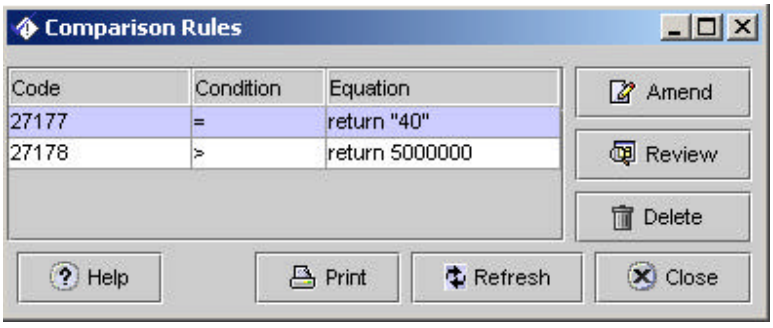


FIGURE 4.2.3.2.1, COMPARISON RULES

All defined comparison rules are listed in a table format. Comparison rules can be created only during the process of building the MDT when nodes, items, and variables are being created. An example of how to create a comparison rule during the process of creating an Input item is provided below. First point to the place on the MDT where the input with the comparison rule is to be located and then Click on the **Input** button. See *Figure 4.2.3.2.2*.

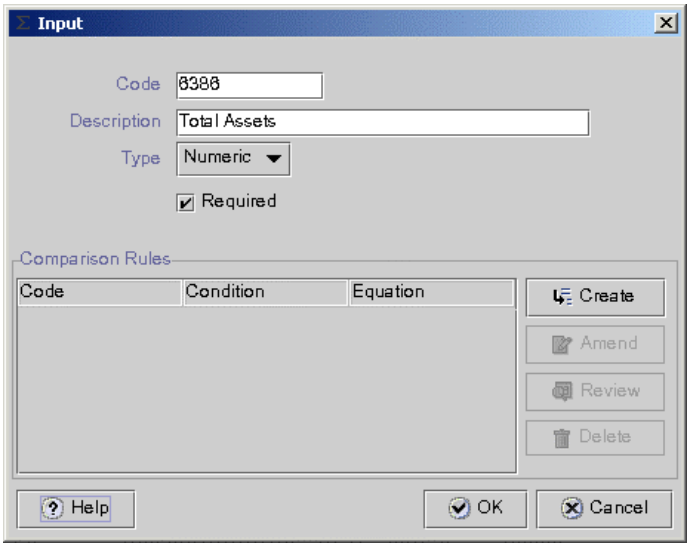


FIGURE 4.2.3.2.2, INPUT

To define the Input, fill in the Code, Description, and Type fields as well as the Required status. To access the **Comparison Rules** definition screen, Click on the **Create** button on the Input screen and *Figure 4.2.3.2.3* will be displayed.

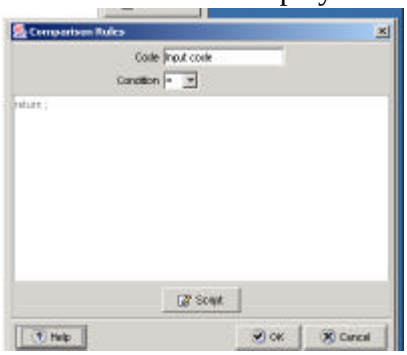


FIGURE 4.2.3.2.3, COMPARISON RULE

The code for the Comparison Rule will be the same as the code for the Input and will automatically appear on the Comparison Rule screen. Click on **Script** to define the Comparison Rule Formula and the Formula Wizard screen opens. See *Figure 4.2.3.2.4*.

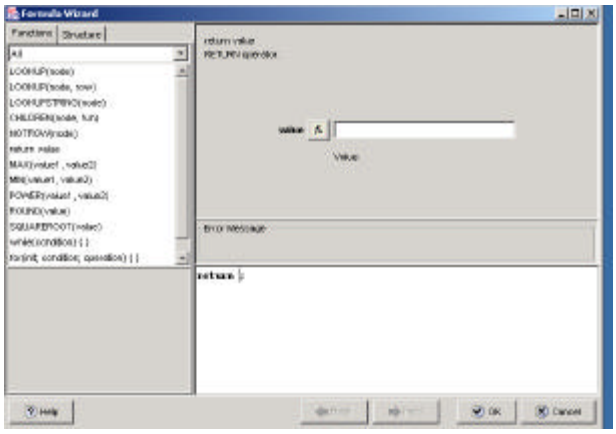


FIGURE 4.2.3.2.4, FORMULA WIZARD

For instructions on how to work with the Formula Wizard refer to Chapter 5.1.4.1, Wizards of this manual. Click **OK**.

4.2.3.3. Period Types

The **Period Types** menu item is used for defining the various time periods that the returns cover (i.e., annual, monthly, quarterly, etc.). A sample **Period Types** screen is shown in *Figure 4.2.3.3.1*. The defined period types are listed in a table format. All buttons function as described in Chapter 3.2.6, Using Icons and Buttons.

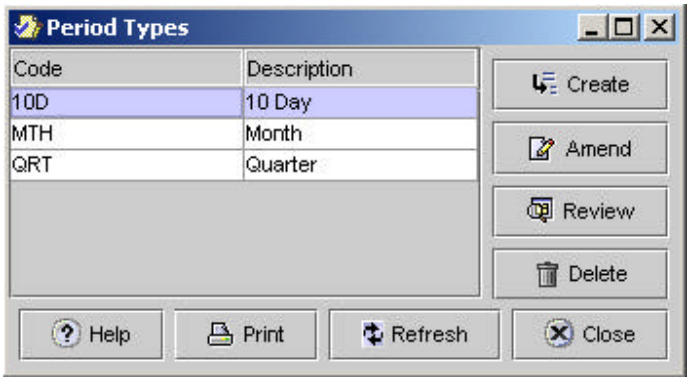


FIGURE 4.2.3.3.1, PERIOD TYPES

4.2.3.4. Period Definition

All of the specific periods in the FinA system are defined under the **Period Definition** menu item. The periods are listed in table form and include type, number, and start/end date. You can create, amend, review, delete, and/or print period definitions. The Period Definition screen is shown on *Figure 4.2.3.4.1*.

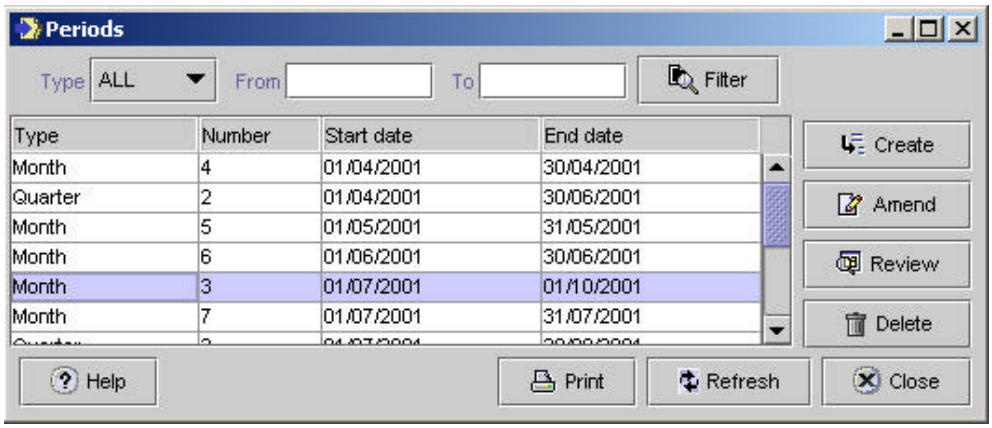


FIGURE 4.2.3.4.1, PERIODS

You can sort the list by any column by Clicking on the column heading. To create a period Click on the **Create** button. See *Figure 4.2.3.4.2*. Using the Browser button select the **Type** of period (i.e., Monthly). If you are defining a monthly report for April, then enter 4 in the Number field (i.e., April is the 4th month). Then enter the date and Click **OK**. ***(Note: the date must be in the format that is defined under the Language menu item* File/Language*).***

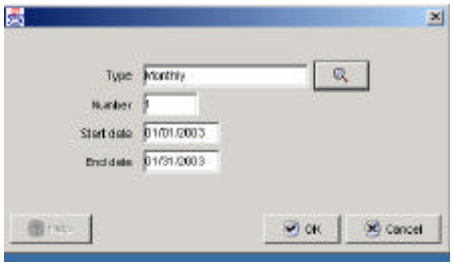


FIGURE 4.2.3.4.2, PERIOD DEFINITION

4.2.3.5. Period Auto Insert

The **Period Auto Insert** menu item is used to quickly define sequential periods. For example, if 12 months must be defined for 2002, it is not necessary to repeat the **Period Definition** process as just explained above. Click on **Metadata/Period Auto Insert** and fill in the fields in the screen displayed on *Figure 4.2.3.5.1*:

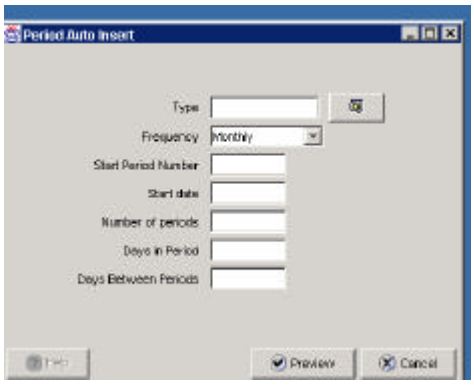


FIGURE 4.2.3.5.1, PERIOD AUTO INSERT

Choose the period type by Clicking on the Browser button and selecting the period **Type**. Define the **Frequency** of the period using the drop-down menu. Enter a start period number (i.e., the numeral "1" will start the period definition with the first period of the year) and the number of periods to be defined. ***(Note: the date must be in the format that is defined under the Language menu item File/Language)***. For the definition of daily period type—i.e., 10-day, 20-day, etc.—the **Days in Period** and **Days Between Period** fields will be active and must be completed. Click on **Preview** to view the periods that have been defined and then Click on **Insert** to finalize the definition of the periods in the system.

Note: In order for the Period Auto Insert to function, the time zone settings have to be identical on both the machine that has the FinA Server and the machine that has the FinA client.

Note: If a period number and the start date do not match on the Period Auto Insert screen (i.e., if the period number is 5, which is the 5th month, and the date is 02/01/2000) the system will define the periods based on the period number. (i.e., the 5th month or 05/01/2000.

4.2.3.6. Schedules

The banking laws and regulations of a country determine what returns have to be submitted by banks and for what periods of time. Banks submit these returns (call reports) to the Supervisory Agency in accordance with an established schedule. The **Schedules** menu item contains the information on all schedules for returns defined in the FinA system. A sample **Schedules** screen is shown on *Figure 4.2.3.6*. The **Schedules** screen lists: the returns to be submitted, the periods of time that the returns cover, the banks that have to submit each return, and the due date (amount of days after the end of the period each return is due). Schedules may be based on standardized periods (i.e., reports are to be a determined number of days after the end of the period) or they may be customized for each report or each bank. Schedules may also be customized for each institution.

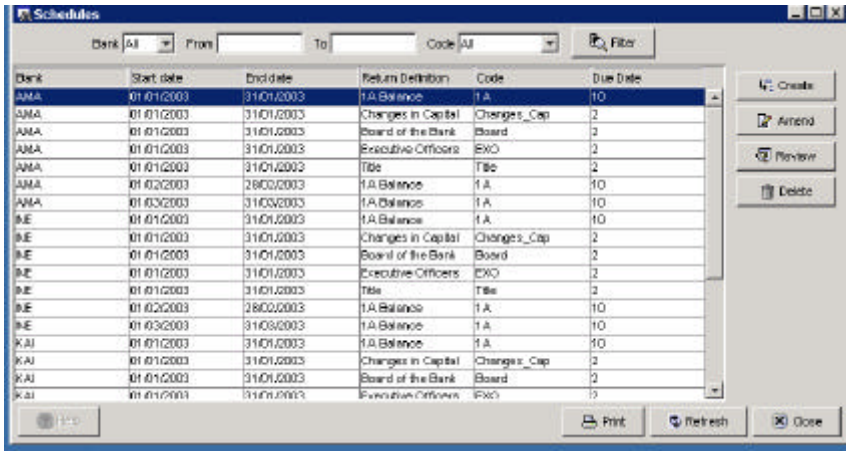


FIGURE 4.2.3.6, SCHEDULES

To quickly find a particular schedule or set of schedules use the filter on the top of the screen. The filter can be set up to sort the schedules by banks, periods, and/or return codes.

All defined schedules are listed in a table format with information about the bank, start/end date of the period, return (definition and code), and the due date (amount of calendar days after the end of the period that each return is due to the Supervisory Agency). All buttons function as defined in Chapter 3.2.6, Using Icons and Buttons.

4.2.3.7. Schedule Auto Insert

The **Schedule Auto Insert** menu item facilitates the definition of multiple schedules in the FinA system. Click on **Metadata/Schedule Auto Insert** and a screen similar to the screen on *Figure 4.2.3.7.1* will appear. Click on the **arrow to select the bank(s)** or the double arrow to select all banks. Then Click on the **arrow to select return(s)** or the double arrow to select all returns. Do the same for the period(s) and enter a due date (days until the deadline). Click on the **Preview** button to view the schedules that will be defined and if correct, Click on **Insert** to actually define the set of schedules in the FinA system.

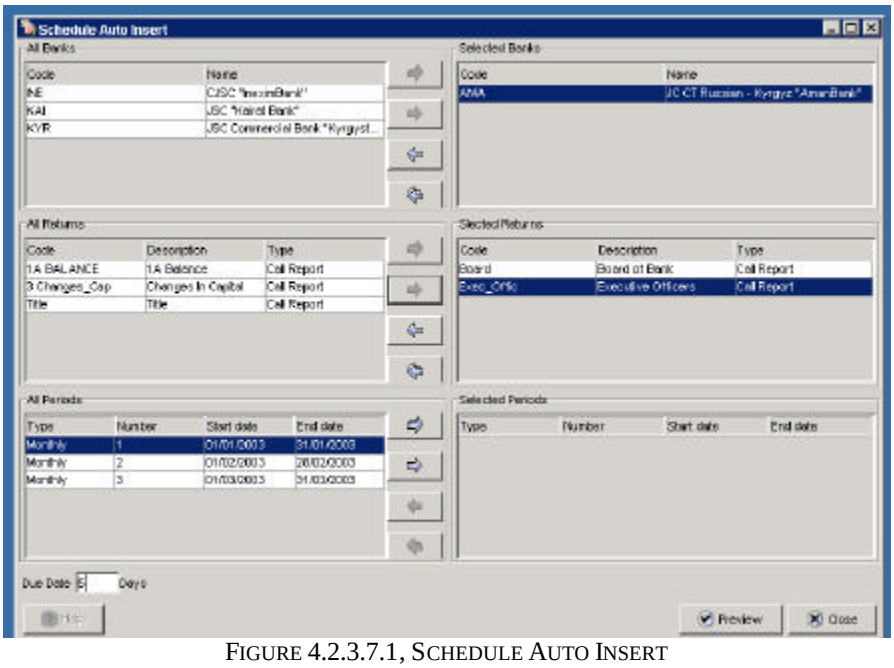


FIGURE 4.2.3.7.1, SCHEDULE AUTO INSERT

4.2.3.8. Return Types

The **Return Types** menu item is used to define groups for the returns. The Supervisory Agency may wish to group returns into categories by type or year such as financial statements, compliance reports, supervisory forms, etc. To access this menu item, Click on **Metadata/Return Types** and a screen similar to *Figure 4.2.3.8.1* will appear:

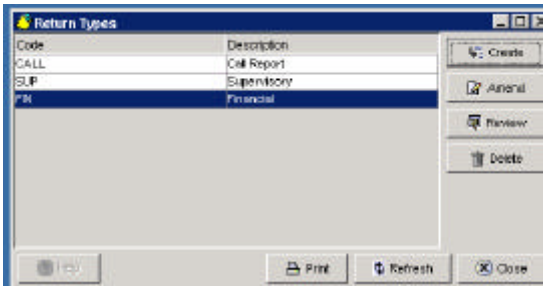


FIGURE 4.2.3.8.1, RETURN TYPES

4.2.3.9. Return Definition

Under the **Return Definition** menu item, all returns in the FinA system are defined. To access the Return Definition screen, Click on **Metadata/Return Definition** and a screen similar to *Figure 4.2.3.9* will be displayed:

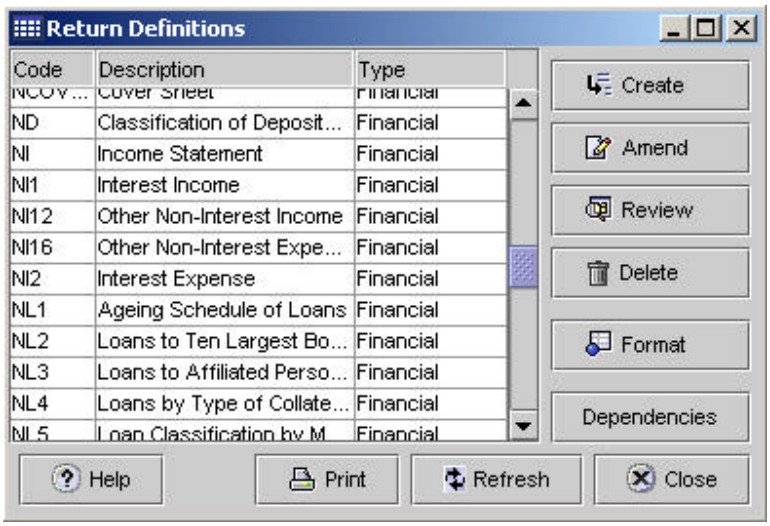


FIGURE 4.2.3.9, RETURN DEFINITION

All returns defined in the system are presented in a table format and are organized by return code, description, and type. There are also two additional buttons on this screen: **Format** and **Dependencies**. To change the format of a return, Click on the **Format** button and standard spreadsheet formatting tools will become available. Clicking on **Dependencies** will generate a graph of all returns and their inter-relationships.

4.2.4. Processing

4.2.4.1. Return Manager

The Return Manager menu item allows the Supervisor to manage all returns in the FinA system. Click on **Processing/Return Manager** to access the **Return Manager** menu item. The screen on *Figure 4.2.4.1.1* will appear.

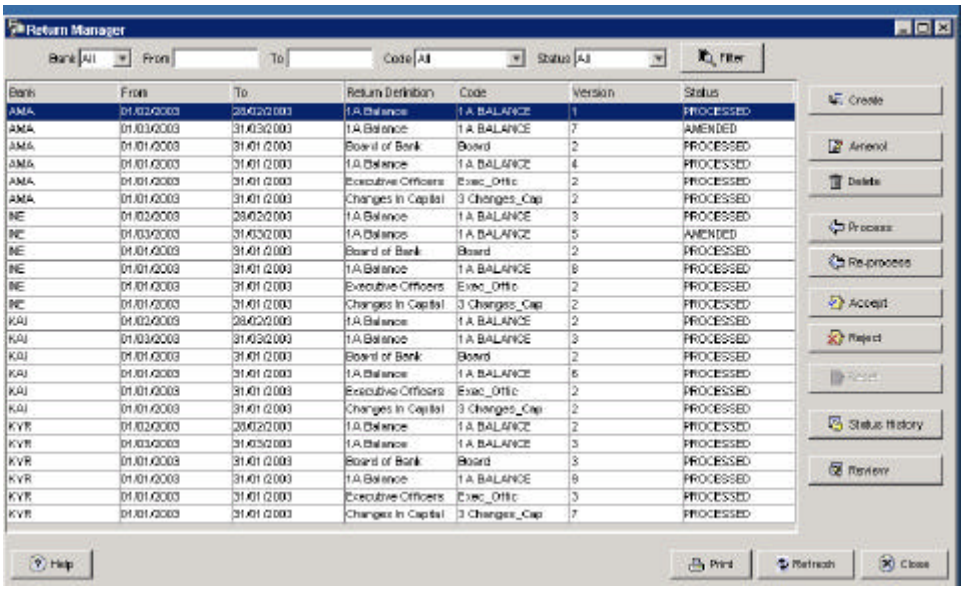


FIGURE 4.2.4.1.1, RETURN MANAGER

At the top of the screen is a filter that allows you to easily group the returns based on banks, return period, return code, and status. For example, if you are working on a regulatory capital analysis for all banks for the first quarter of the year, then you would Click on **Bank=All**, enter **From=01/01/2001**, **To=03/31/2001**, and Click on **Return**= **Regulatory Capital** and then Click **Filter.**

Bank/All > enter dates From and To > Return> Regulatory Capital > Filter

The Return Manager also keeps track of the status of the returns. The status of a return may include the following:

- **Created –** the return was created manually in FinA
- **Amended –** the return was amended
- **Processed –** a return in which all variables are calculated and comparison rules are verified.
- **Accepted –** a return checked by the examiner and accepted (acceptance of the financial and economical content of the return)
- **Rejected –** return rejected based on economical and/or financial content of the return, incomplete return, or accounting errors, etc.
- **Reset** - if it is necessary to amend or re-import an accepted return, the user must first reset the return by Clicking on **Reset**.

Please refer to the *Off-site Examiner Manual*, Chapter 6.2 for additional information on working with returns (i.e., deleting, reviewing, processing) and for the return statuses (i.e., accept, reject, reset).

4.2.4.2. Import

The **File Import** menu item is used to load returns into the system one-by-one. The returns have to be converted into the appropriate FinA XML format and saved on the hard drive. To access File Import, Click on **Processing/File Import** and the screen on *Figure 4.2.4.2.1* will be displayed.

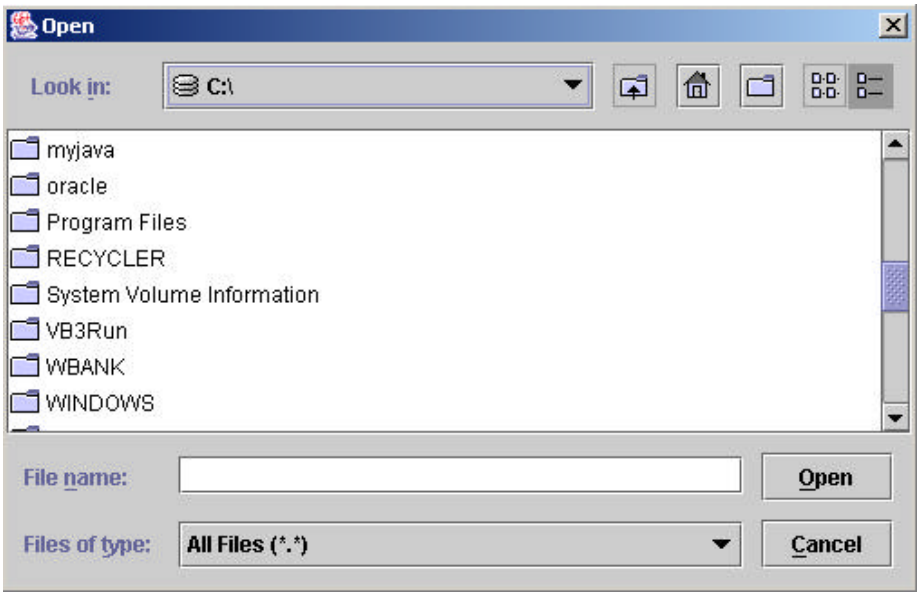
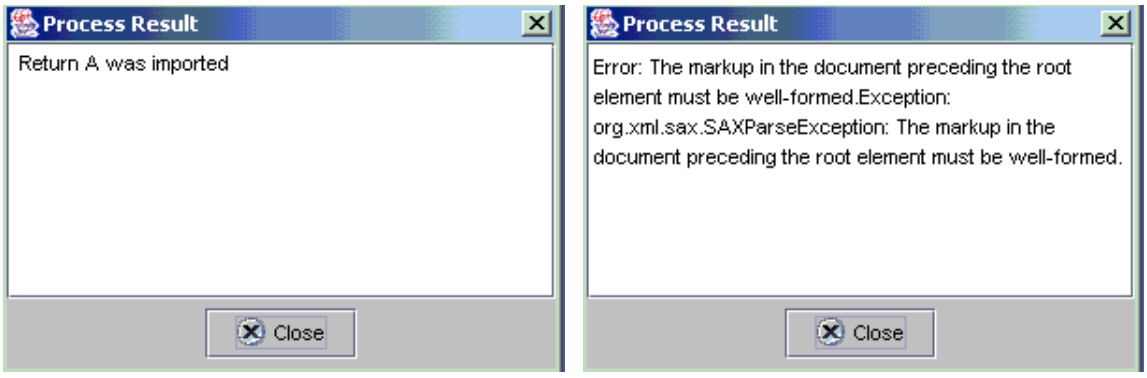


FIGURE 4.2.4.2.1, FILE IMPORT

Processing/File Import, highlight the file > Open

Find the file that you wish to import in the list of directories. Highlight the file and Click on **Open**. In a few seconds a screen will appear with the results of the import, which will indicate either that the return was successfully imported, or that there was an error and, if so, will provide an explanation. See ***Results from File Import, Figure 4.2.4.2.2***.



Import OK Screen

Import Error Screen

Figure 4.2.4.2.2, Results from File Import

4.2.4.3.File Robot

File Robot is used to import multiple returns into FinA simultaneously. The returns must first be converted into the appropriate FinA XML format. Once these returns are in the FinA format, they must be saved in "C:\Program Files\Fina2Client\Import\In" on the machine that is running the FinA Client. This is the default destination directory where the Converter saves all XML files and also the source directory for the File Robot. To start the File Robot, Click on Processing/File Robot. The screen on *Figure 4.2.4.3.1* appears.

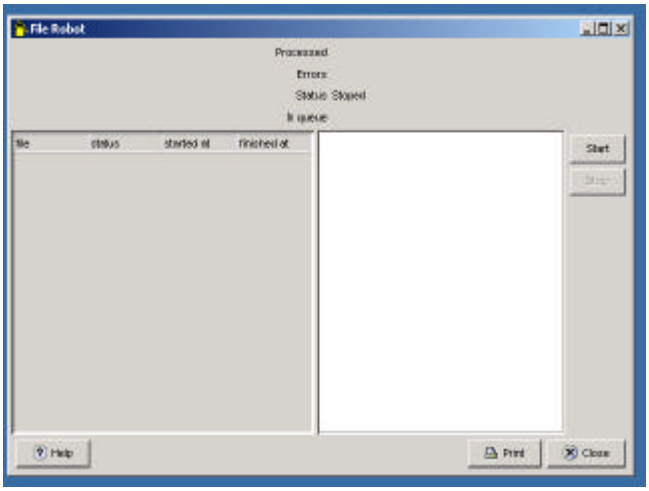


FIGURE 4.2.4.3.1, FILE ROBOT

Click **Start** to begin the import process. The system will start to process all files that are in the **In** folder. A result screen will display. See example on *Figure 4.2.4.3.2*.

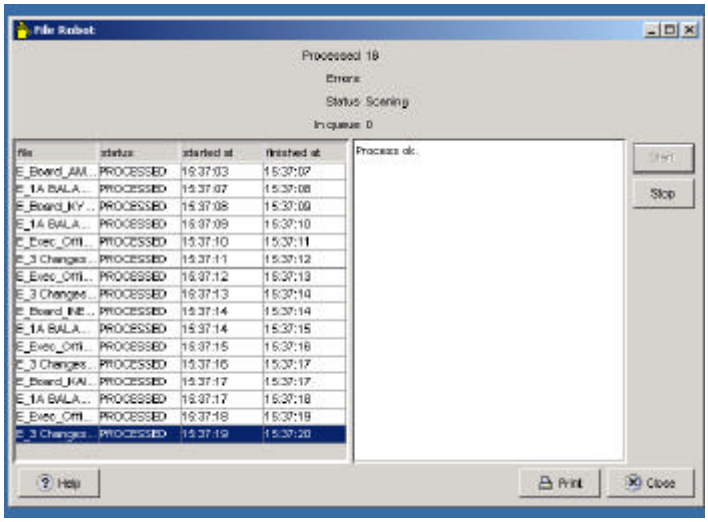


Figure 4.2.4.3.2, File Robot Results

On the left side is a list of returns loaded in the system. On the right side the status of the highlighted return is displayed. In case of an error, a brief explanation is provided.

4.2.4.4.Possible Errors in Importing files

A common problem during importing is recycling during processing. Recycling happens when two or more returns are linked together (i.e., Return A depends on Return B, and return B depends on Return A). If this is the case, FinA will not be able to process A because B it is waiting for A and cannot process B because it is waiting for A. This is caused by a design flaw in the MDT. (In an Excel spreadsheet, A and B would be shown as different sheets of the same return. The best way to solve this problem is to check dependencies and correct the MDT or merge Returns A and B.)

Another common error occurs when there is a wrong link in the converter. If for example cell A4 is linked to the MDT item with account code CashInFX001 instead of the correct item with code CashInFX002 FinA will not import that return and the following error message will appear: ***Item CashInFX002 expected, process stopped.*** To correct this error, find that reference in the converter and correct the account code.

4.2.5. Reports

4.2.5.1. Report Manager

The **Report Manager** menu contains all of the screens for report definition and generation and is presented in the form of a tree-type structure with folders and items. The folders represent a set of individual reports. See *Figure 4.2.5.1.1*. It is the responsibility of the System Manager to define the reports in FinA. For detailed instructions on how to design and build reports in FinA, please refer to the Chapter 5.1.8, Reports in this manual.

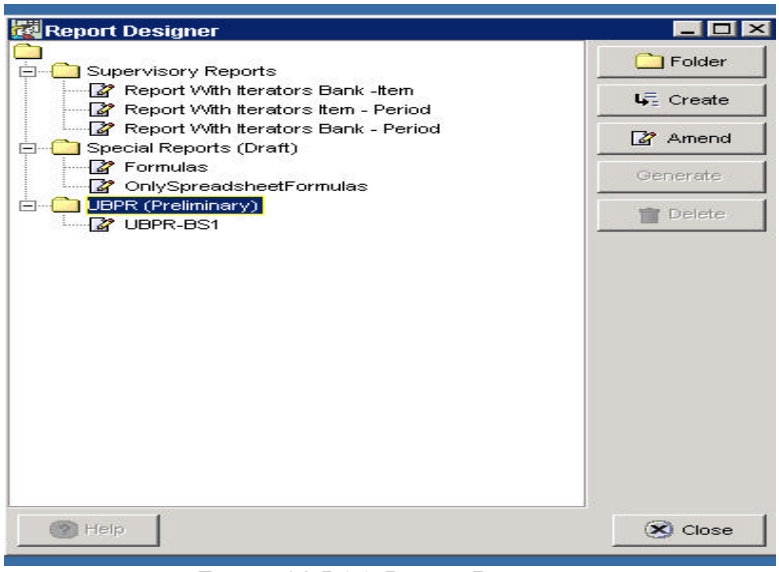


FIGURE 4.2.5.1.1, REPORT DESIGNER

4.2.5.2.Generating Reports

To generate a report, Click on **Reports/Report Manager**. Highlight the report you wish to generate and Click **Generate.** Depending on the way that specific report is designed, a user may be asked to select periods, banks, and input information from the MDT. A sample screen for period selection is presented on *Figure 4.2.5.2.1*.

Reports/Report Manager > highlight the report > Generate > highlight period > Arrow > OK

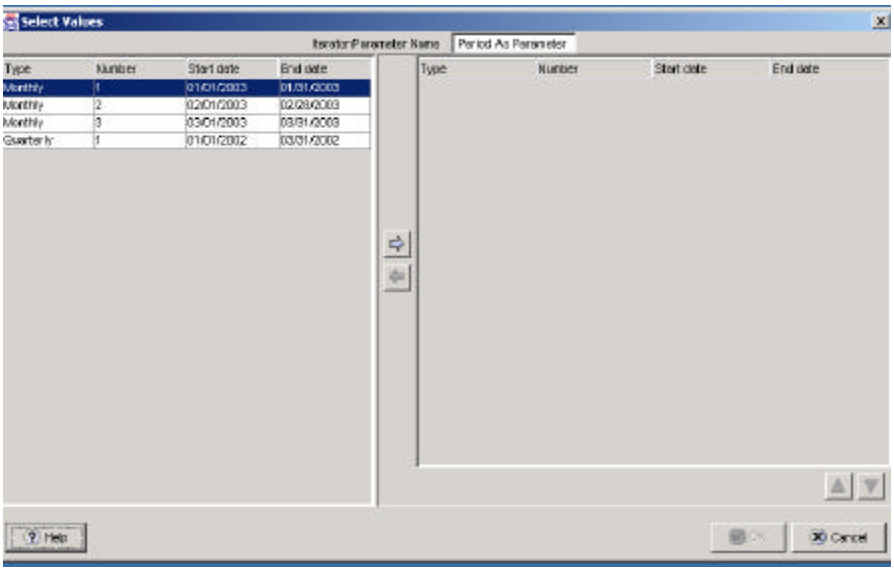


FIGURE 4.2.5.2.1, SELECT RETURN

On the left side of the screen all periods defined in FinA are listed. Highlight the period you want the report to cover, Click on the **Arrow** that points to the right and then Click on **OK.** ***Note: You may select multiple periods, i.e., for trend analysis reports.***

Once all required information is entered, a generation bar displays. After a few seconds, depending on the complexity of the report, the report is generated and presented in a spreadsheet format. A sample report is shown in *Figure 4.2.5.2.2.*

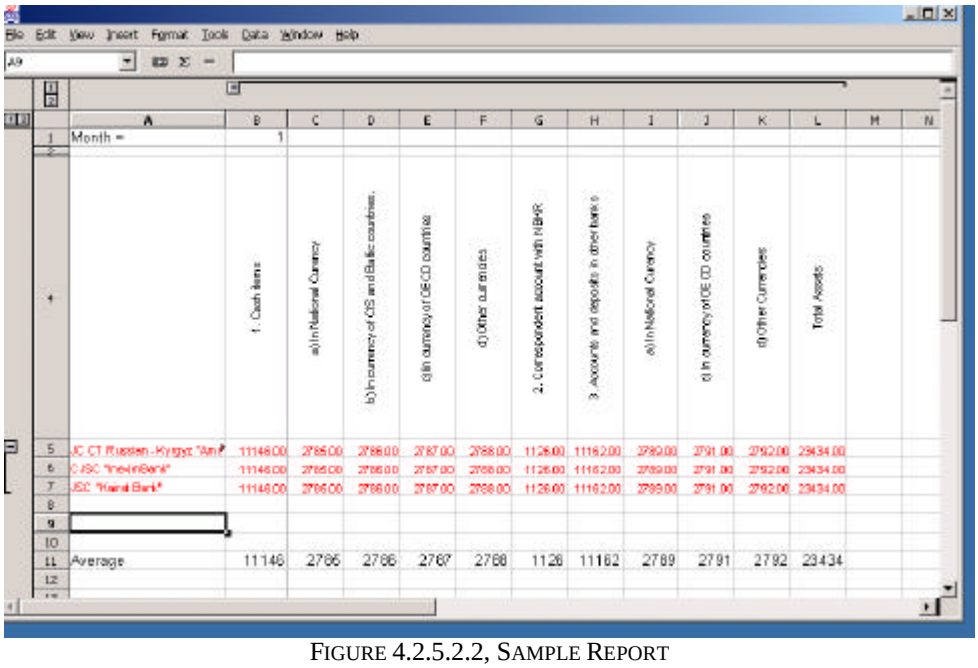


FIGURE 4.2.5.2.2, SAMPLE REPORT

(Please refer to the *Off-site Examiner Manual*, Chapter 7.2 for additional information on error messages, saving and printing reports).

5. FinA Customization

5.1. Customization Steps

To customize FinA to reflect the structure of the local banking system and the specific legal/regulatory requirements in each country, follow the steps outlined below in the order in which they are presented:

1. Build the FinA system menu structure
2. Create Roles and Users (assign relevant permissions and user access rights)
3. Set-up Banks (Licenses, Bank types, Groups)
4. Define Metadata Structure with all comparison rules and calculations
5. Create periods for each bank
6. Create schedules for each bank
7. Create Return Definitions
8. Design reports
9. Build customized converter for FinA

5.1.1. Menu Structure

The menu and menu items structures are fully customizable. It is recommended that you build these structures according to local requirements, preferences, and user rights. (Please refer to Chapter 4, Menus and How They Work of this manual for instructions on how to create, amend, and delete menus and menu items).

5.1.2. Users and Groups

For instructions on how to set-up users and groups, please refer to Chapter 4.2.1.2, User Manager of this manual.

Note: The following key issues should be taken into consideration:

- ***A group that has users assigned to it cannot be deleted.***
- ***A user cannot be deleted if he or she is associated with an object/action in the system (i.e., if the user has created banks, returns, changed return statuses, amended returns, etc.)***
- ***Users can belong to several groups.***
- ***Extra permissions (in addition to the ones assigned to the group) can be* assigned to a user. *See the example below in Figure 5.1.2.1.***

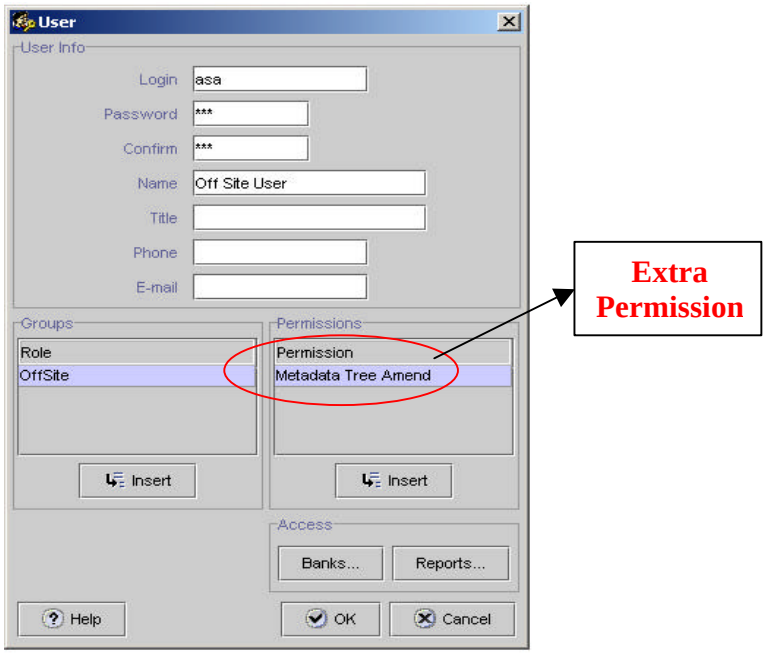


FIGURE 5.1.2.1, EXTRA PERMISSIONS

Note: There is a special rule that applies to return-related permissions (return review, return amend, return accept, etc.). The permissions: return definition

review, schedule review, and bank review are pre-requisites for the granting of return-related permissions to a user. This is logical. Without these permissions the user will not be able to work with the "Return Manager" module.

5.1.3. Bank Set up

In FinA the term “bank” is a general term that is used to refer to any regulated financial institution (i.e., credit unions, investment companies, etc.). The following information is needed to define a bank in FinA: bank type, license type, peer group, address, name, etc. At a minimum, before adding a bank, the peer groups and bank types must be defined.

Open **Banks/Bank List** menu item. A sample screen is shown on *Figure 5.1.3.1*.

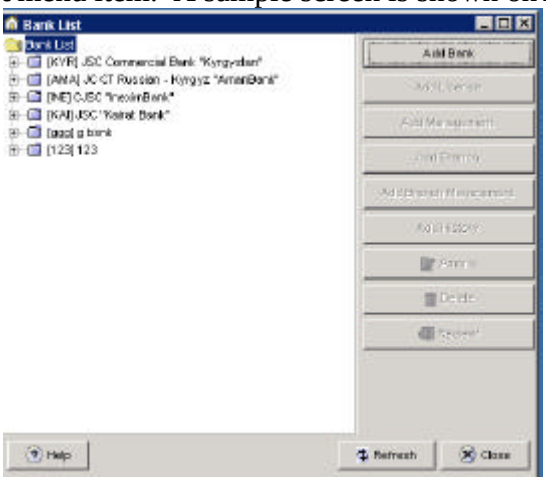


FIGURE 5.1.3.1, BANK LIST

Highlight the folder under which you want to create a new bank. Click on **Add Bank** and the screen ***Bank Information, Figure 5.1.3.2*** opens.

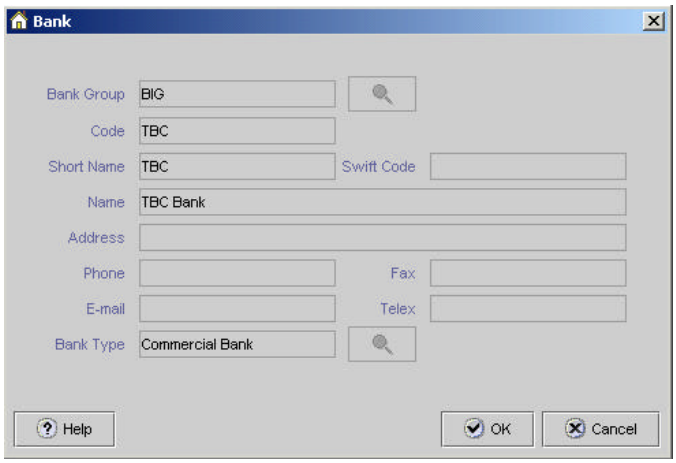


FIGURE 5.1.3.2, BANK INFORMATION

Complete the open fields with bank information. The Peer Group and Bank Type information can be accessed through the Browser by Clicking on  . Once all of the information has been entered, Click **OK**.

5.1.4. Define Metadata Structure

The most important component of FinA is the MDT. A graphical presentation of the steps required to design the MDT is shown on *Figure 5.1.4.1*. For instructions on how to create nodes and sub-nodes refer to Chapter 4.2.3.1, Metadata Tree.

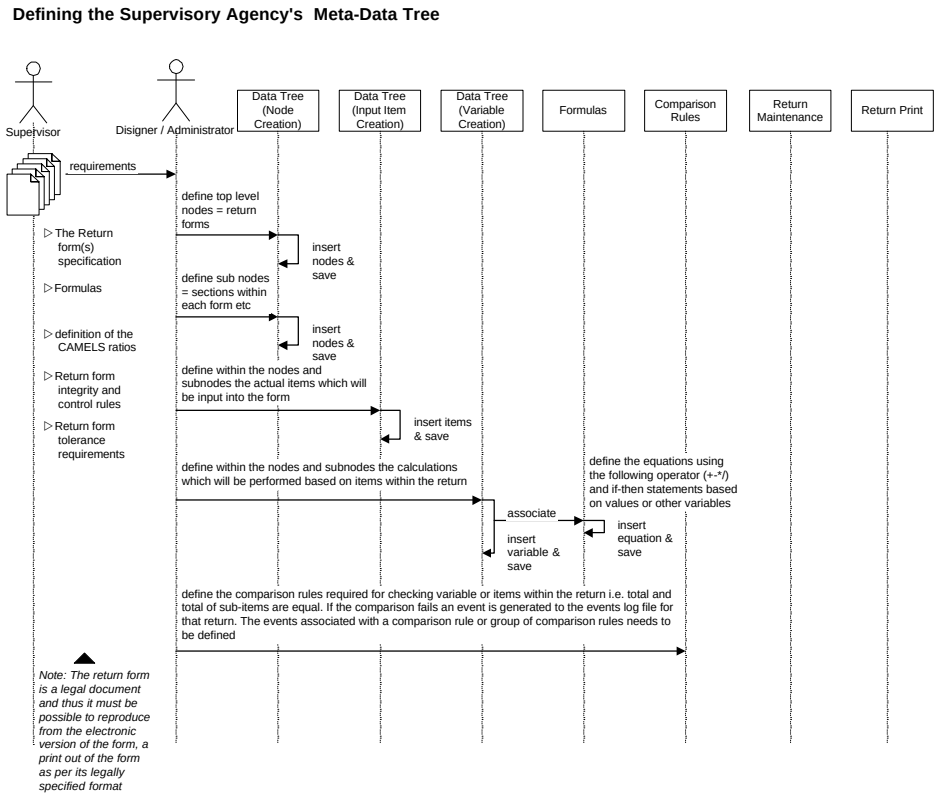


FIGURE 5.1.4.1, DEFINING MDT

Before designing a MDT, an understanding of the concept of presenting tables in FinA is necessary. There are three groups of tables in FinA: Normal Tables, Multiple Cross Tables (MCT), and Variable Cross Tables (VCT).

A Normal Table has two columns and a fixed number of rows. The first column contains a description of the items. The second column contains the item's value. An example of a normal table follows.

Name	Amount
Authorized capital	$ 100,000.00
I capital	$ 25.00
II capital	$ 1,000.00
Total capital	$ 1,025.00

A MCT has a fixed number of columns and a fixed number of rows. The number of columns is more than two. An example of a MCT is provided below.

B10-1 Accrued Expense

Interest Expense Accrued and Not Paid	GEL	FX	Total
Interest Expense Accrued and Not Paid on Deposits			
Interest Expense Accrued and Not Paid on Borrowings			
Other Interest Expense Accrued and Not Paid			

A VCT has a fixed number of columns and a variable number of rows. We do not know the exact number of rows. Usually it is a list (i.e., list of shareholders, list of management, list of branches, etc.). Column one is normally used to number the items.

RESIDENT SHAREHOLDERS

No.	Shareholder (partner)	State-owned/private	Stated amount	Capital share	Paid in capital	
					Amount	Share
1						
2						
3						
4						
.						
.						
.						
N						

Each one of these groups of tables must be designed differently in the FinA MDT. To design a Normal Table, create a node with the name of the table and sub-nodes corresponding to each of the rows in the table. *Figure 5.1.4.2* shows the MDT for the Normal Table.

FIGURE 5.1.4.2, MDT FOR NORMAL TABLE

A MCT is designed in the following way: each column is defined as a node and the row structure is input under each node. *Figure 5.1.4.3* shows the MDT.

FIGURE 5.1.4.3, MDT FOR MCT

A VCT is presented in a way similar to the Normal Table presentation. A node is created with the name of table and the items/variables come from the columns (for Normal Tables the items/variables come from the rows) as sub-nodes. *Figure 5.1.4.4* shows the MDT.

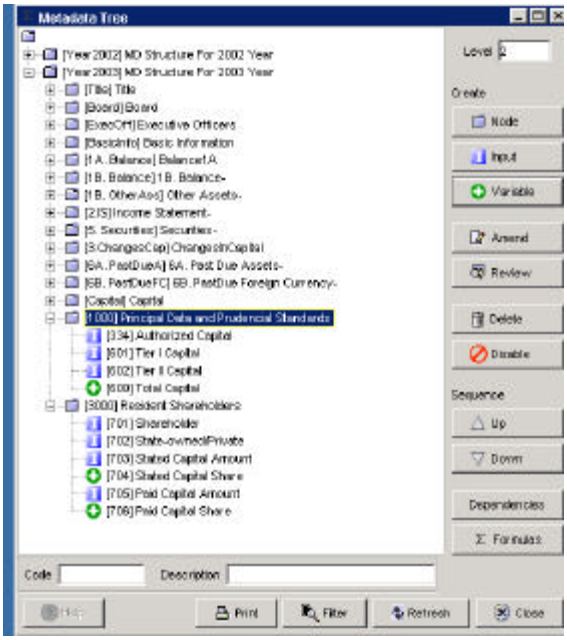


FIGURE 5.1.4.4, MDT FOR VCT

5.1.4.1.Wizards

Wizards are used to help enter Formulas in the MDT and to design reports.

5.1.4.1.1. Definitions

Formula – an equation or any combination of symbols that represent a value.

Function – a named section of a Formula that performs a specific task (i.e., calculates square root, calculates the average, etc.)
Parameter – the term *parameter* is synonymous with a value that is passed to a function. For example, for the Formula SQUAREROOT (value)—The function is **SQUAREROOT** and the parameter is **value** or a number that the Formula will calculate the squareroot of.

5.1.4.1.2. Concept of Formulas

Formulas in FinA may include:

- single Formulas: standard one-string equations (i.e., Formulas from Excel, FormulaOne, OpenOffice Calc, etc.)
- conditional Formulas: Formulas that contain “if” and “then” statements
- loop Formulas: Formulas that contain computations in which an output value is fed back as input, even though the computation occurs only once.

The Formulas may be entered in FinA with the help of the Formula Wizard or by directly inputting Java script language and the OpenOfficeCalc (OOC) spreadsheet Formulas.

Single Formula example

Single Formulas begin with the word **RETURN** instead of the symbol "=" i.e., the syntax of a single Formula is: ***Return <Function (s)>***.

Return Lookup("123") + Lookup("12")

In this example the Formula is adding two items with account codes "123" and "12".

Conditional Formula example

```
if (lookup("A-CA1GEL9") < 0)
        return "0 "
else
         return .lookup("A-CA1GEL9") * 0.5
```

In this example, the Formula is checking the item corresponding to the account code "*A-CA1GEL9* ". If its value is negative, then the result is 0, if its value is not negative, then the result is the value of the item corresponding to the account code "*A-CA1GEL9"* multiplied by 0.5.

5.1.4.1.3. The Formula Wizard Screen

The Formulas may be entered in FinA with the help of the Formula Wizard or by directly inputting Java script language and the Open Office Calc. (OOC) spreadsheet Formulas. This section discusses the use of the Formula Wizard.

The Formula Wizard can be used when defining the Formulas for calculating variables in the MDT and when defining reports. To create a new variable on the MDT, first Click on **Metadata/Metadata Tree.** Then indicate the place on the tree where you want the variable to be located and Click on the **Variable** button. Fill in the fields for the code and description, and the comparison rule as needed (see instructions in Chapter 4.2.3.2, Comparison Rules). Click on **Script** in the Equation field and a Formula Wizard Screen similar to the one shown in *Figure 5.1.4.1.3.1* will appear:

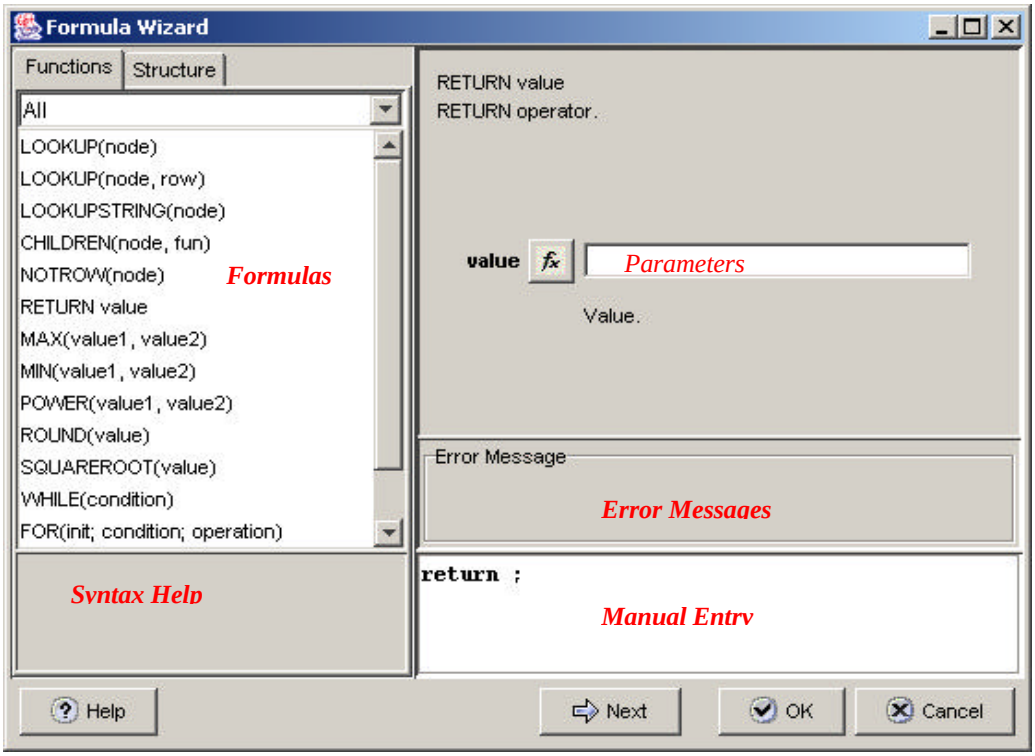


FIGURE 5.1.4.1.3.1, FORMULA WIZARD FIELDS

The screen is divided into the following sections: **Formulas, Syntax Help, Parameters, Error Messages,** and **Manual Entry**. See the text in *italics* on *Figure 5.1.4.1.3.1* for the layout of these sections.

1. The Formulas Section contains two Tabs: **Functions** and **Structure.**

    1.1. The **Function Tab** contains a list of all Formulas that are defined in FinA. They are grouped by types: MDT, System ("Return"), Mathematical (i.e., MIN, MAX, etc.), Loops, Conditional. Using the drop-down filter, you can display only the group of Formulas that you are interested in.

MDT Formulas

- LOOKUP ("node") – Gives the value of the specified node for a particular bank and period.
  Parameters:
  node - account code of the object

- LOOKUP("node", "row") – Gives the value of the specified VCT row number for a particular bank and period.
  Parameters:
  node - account code of the item
  row - row number inside a VCT

- LOOKUPSTRING ("node") – Gives the string (Formula) value of a specified node for a particular bank and period.
  Parameters:
  node - account code of the item

- CHILDREN ("node", "fun") - Calculates the value of the sub-nodes of a specified node.
  Parameters:
  node - account code of node
  fun - function used in the calculation: SUM, AVERAGE, MIN,MAX, COUNT

- NOTROW ("node") – Gives the total value of a VCT column. This function must be used only for VCT nodes.
  Parameters:
  node - account code of the column node

System Formulas

- Return value.
  Parameters:
  value – value. A value is a number or a function that returns a value

Mathematical Formulas

- MAX("value1","value2") - Returns the greater of two numbers.
  Parameters:
  value1 - The first number
  value2 - The second number

- MIN("value1","value2") - Returns the lesser of two numbers.
  Parameters:

value1 - The first number
value2 - The second number

- POWER(value1, value2) - Returns the result of the first number raised to the power of the second number.
  Parameters:
  value1 - The value of the first number
  value2 - The value of the second number

- ROUND(value) - Returns the closest integer to the number.
  Parameters:
  value - value

- SQUAREROOT(value) Returns the correctly rounded positive square root of a value.
  Parameters:
  value - value

Loop Formulas

while(condition) { }
Parameters:
condition - condition. (i.e., > 0, < 0)

for(init; condition; operation) { }
Parameters:
init - initial operation
condition - condition
operation – operation performed each cycle

Conditional Formulas

- if(condition) { } else { }
  Parameters:
  condition - condition. (i.e., > 0, < 0)

1.2. The **Structure tab** shows the structure of the Formula in the form of a tree with different levels. An example is presented on *Figure 5.1.4.1.3.2*.

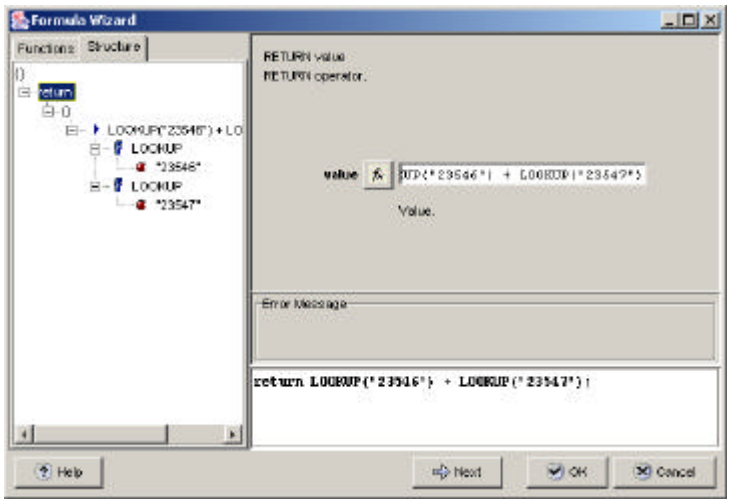


FIGURE 5.1.4.1.3.2, FORMULA STRUCTURE

- indicates Formula

- indicates parameters

2. The Syntax Help section contains a description of what the Formula does and its proper syntax. See *Figure 5.1.4.1.3.3*.

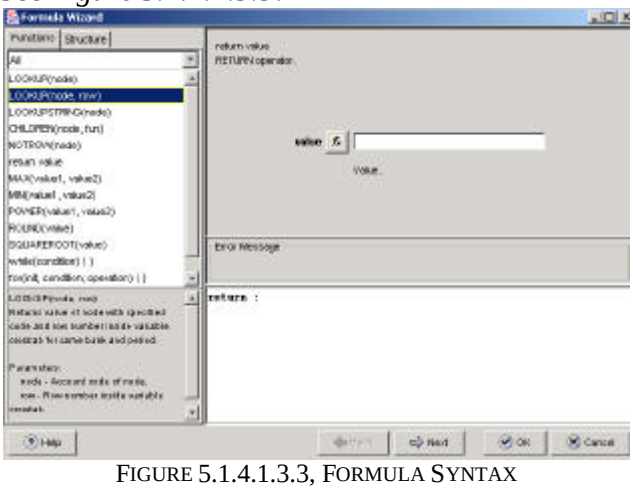


FIGURE 5.1.4.1.3.3, FORMULA SYNTAX

3. In the Parameters field the parameters for the Formula that has been selected are entered. Parameters can be items/variables, conditions (for the "if" and "then" statements), or other functions. For example in the single Formula: ***Return Lookup("123") + Lookup("12"), 123*** is a parameter for the ***Lookup()*** function. In another example:

```
if (lookup("A-CA1GEL9") < 0)
        return "0 "
else
        return .lookup("A-CA1GEL9") * 0.5
```

lookup("A-CA1GEL9") *< 0* - is the first parameter and the condition,
return "0 *"*- is the second parameter, and

return .lookup("A-CA1GEL9") * 0.5 is the third parameter for the conditional Formula.

The type of information that you must enter in the Parameters field depends on the Formula. See Chapter 5.1.4.1.4, Working with Wizards for an explanation of what must be entered in the Parameter field for each type of Formula.

4. The Error Messages section gives the reason for errors in building Formulas (i.e., the Formula structure is not correct). For example, if you typed LOOKUPError instead of LOOKUP, then the error message: "LOOKUPError is not defined" will appear. See *Figure 5.1.4.1.3.4*.

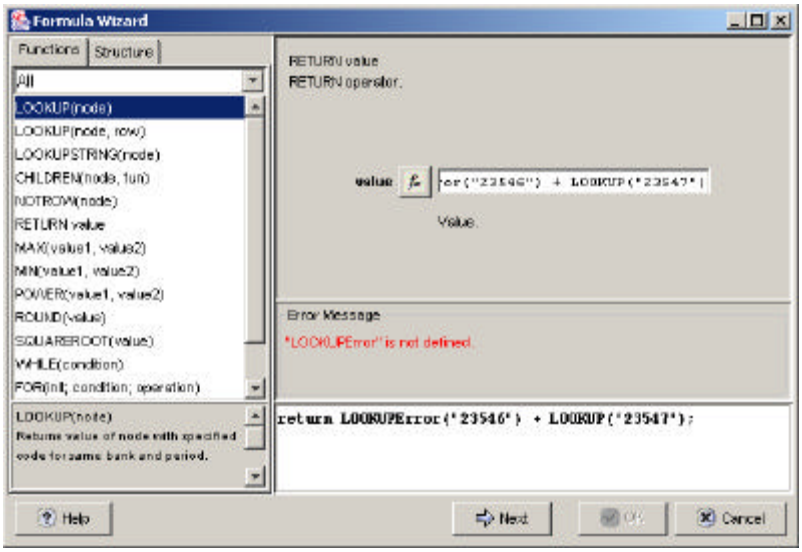


FIGURE 5.1.4.1.3.4, ERROR MESSAGE FIELD

4. The Manual Entry field is for those users who prefer to enter the Formulas manually. Formulas can be entered using the Formula Wizard or directly in the manual entry field using Java scripts and standard open office Formulas.

5.1.4.1.4. Working with Wizards

To create a Formula:

1. Open the Formula Wizard screen.

Click on **Metadata**/**Metadata Tree.** Point to the place on the tree where you want the variable to be located and Click on **Variable** and the Variable Screen will open**.** Click on the **Script** button in the Equations field and the Formula Wizard Screen will open.

2. Select Formula.

Click on the **Function Tab** on the Formula Wizard screen. From the Formula list, highlight the one you want to use and Click on **Next** or Double-Click the selected

Formula. For example, if you Double-Click on **LOOKUP,** a screen similar to *Figure 5.1.4.1.4.1* will open. Since the node has not yet been defined, there will be an error message in the Error Messages section of the screen that says *"node" is not defined*.

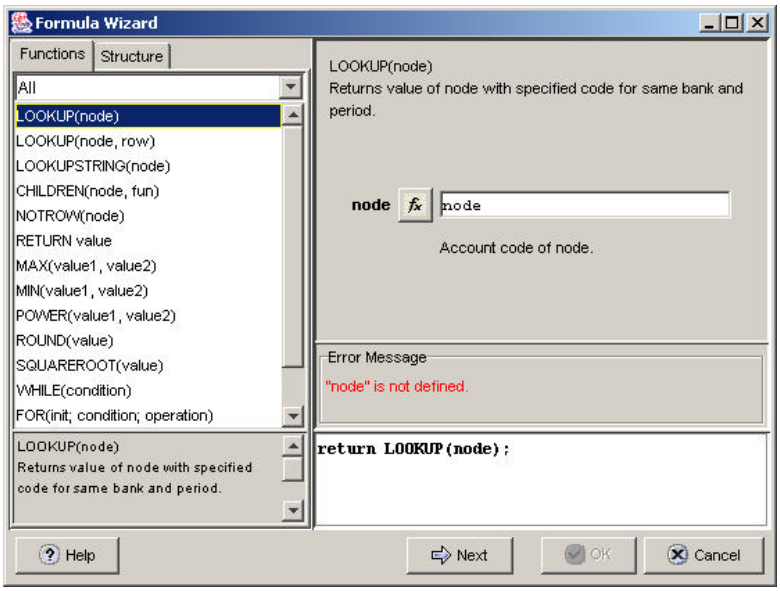


FIGURE 5.1.4.1.4.1, LOOKUP FUNCTION

To define a parameter you need to type in the required information in the Parameter field to the right of "node fx". Before you start typing, delete the explanation word in the field, which in this case is the word “node”. The data entered in the Parameter field should always be in quotation marks.

For a *node* you need to type in the account code of the node from the MDT. Example “TAfx”. See *Figure 5.1.4.1.4.2* below.

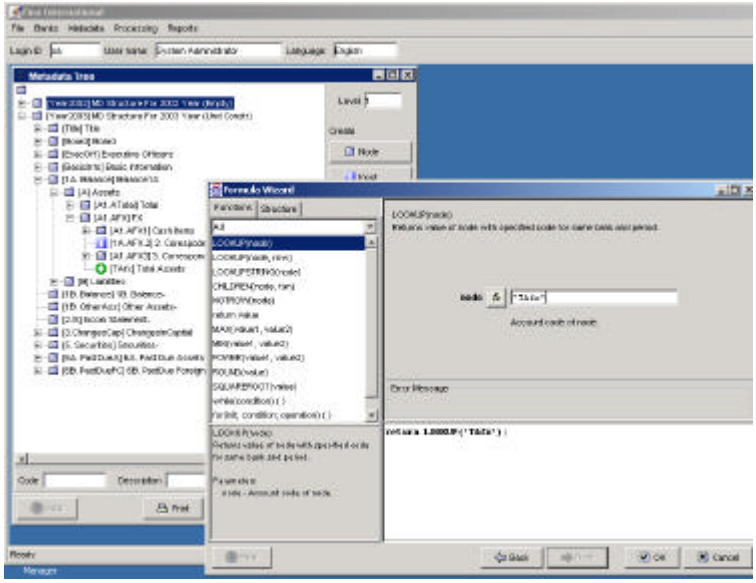


FIGURE 5.1.4.1.4.2, PARAMETER FOR NODE

Some functions require you to define two or more parameters. In this case the screen that opens will have two or more parameter entry fields. For example, the LOOKUP (node, row) function has two parameters: node and row. This function is used to link the cells of a VCT. For example, if we need to know the value of the 3rd row in the Shares Paid In column (SPI account code), the Formula Wizard screen will look similar to that shown in *Figure 5.1.4.1.4.3* below. Rows are entered by simply typing the number of the row in quotation marks in the MDT.

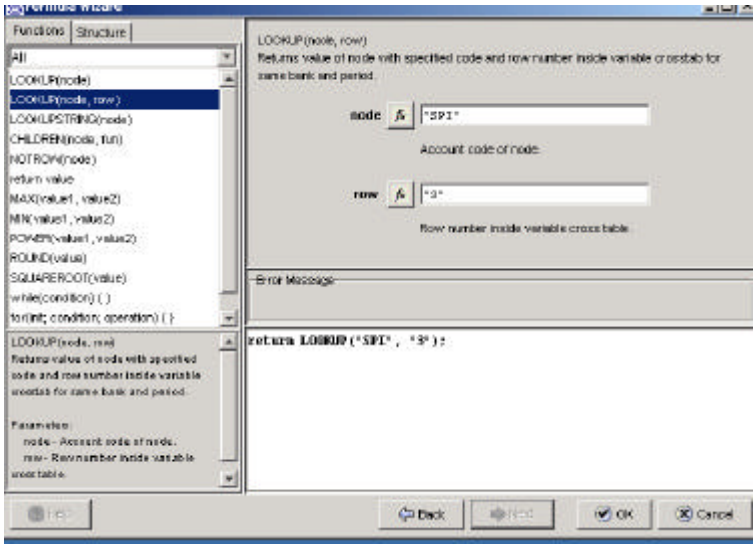


FIGURE 5.1.4.1.4.3, PARAMETER FOR ROW

When the parameter is a value, a number and/or a function that returns a value may be entered. See screen *Figure 5.1.4.1.4.3* for an example.

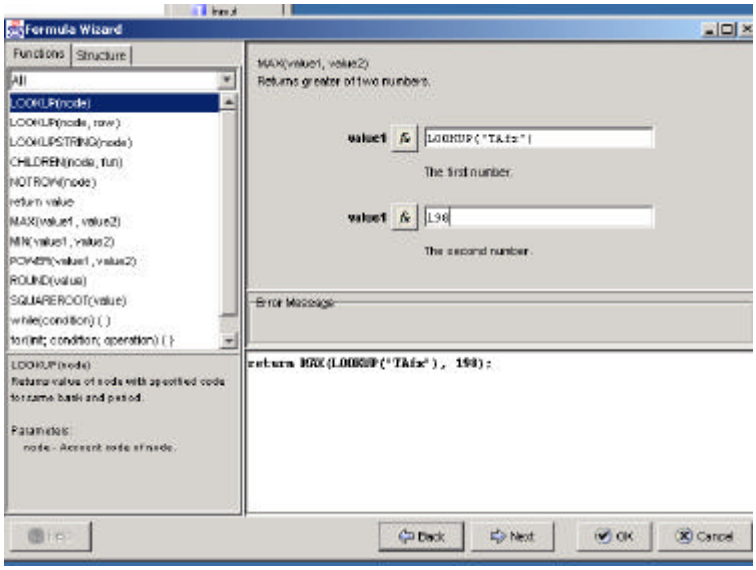


FIGURE 5.1.4.1.4.3, PARAMETER FOR VALUE

Click **OK** when you are finished entering the functions and their respective parameters. This will save the script and close the Formula Wizard screen.

5.1.4.1.5. Script Language Description

Rules for FinA script language

1. A script may have several strings (Formulas)
2. The end of the script (or its logical chain) must be defined with a *"Return"* operator (equivalent of "=").
3. A script may have several *"Return"* operators. An example is when the script contains a conditional operator.
4. You can detect errors in the definition of scripts in the following ways:
    - In the error message section of the Formula Wizard
    - By Clicking on **Dependencies** on the MDT screen and reviewing the dependencies graph
    - By processing a return in the system. (i.e., an error in the Formula of a return will generate an error message during processing)

5.1.4.1.6. Examples

Assume we have a Tier1 Capital with account code "tier1", and a Tier2 Capital with account code "tier2". The Total Capital (account code "TotalC") is calculated according to the following rule: If Tier1 capital is positive, then Total Capital is equal to Tier1 Capital. If Tier1 Capital is negative or 0, then Total Capital is equal to Tier2 Capital.

For this example, the structure of the MDT will be as follows:

To build this tree you need to create a node (account code and description: Capital) and two inputs—one with account code and description Tier1/Tier1 Capital and the other with Tier2/Tier2 Capital.

Next we need to add the "Total Capital" variable with account code "TotalC". Highlight the "Capital" node on the MDT. Click on **Variable** and the Variable screen will open. Then fill in the code and description fields as shown on *Figure 5.1.4.1.6.1*.

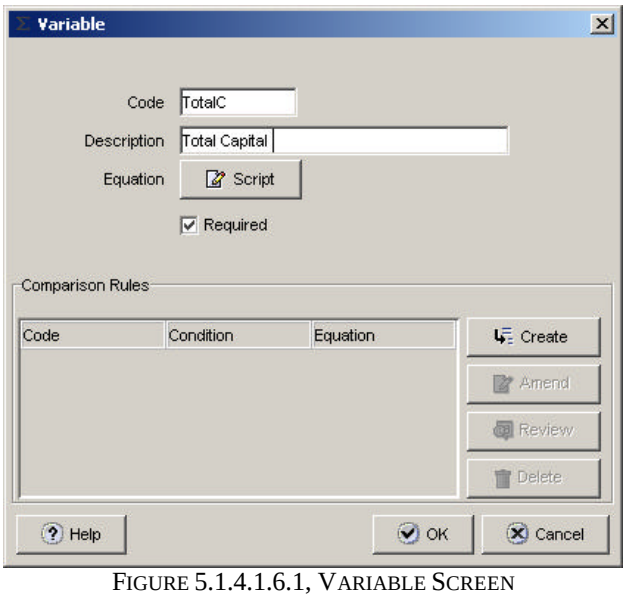


FIGURE 5.1.4.1.6.1, VARIABLE SCREEN

On the Variable screen, Click on **Script** to define the Formulas. The ***Formula Wizard Screen, Figure 5.1.4.1.6.2*** opens as shown:

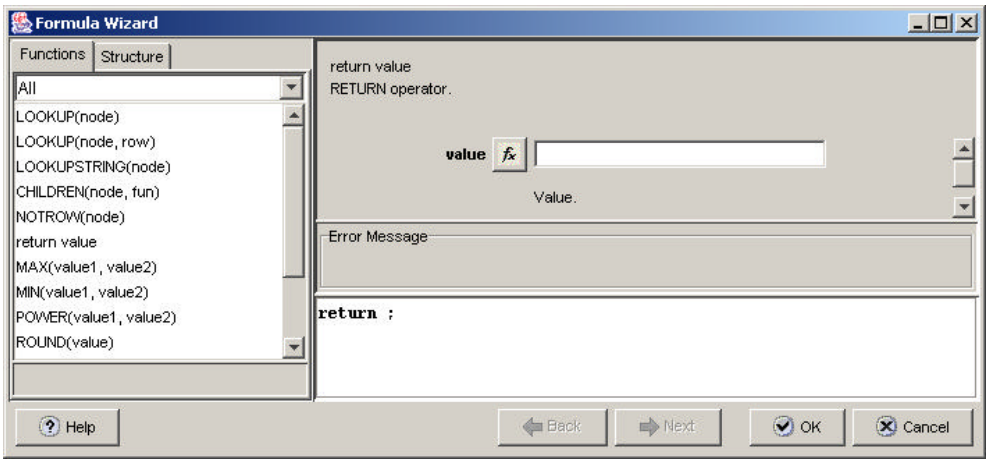


FIGURE 5.1.4.1.6.2, FORMULA WIZARD SCREEN

In this example, a conditional Formula is needed. Therefore, delete "**Return**" in the manual entry field, because it is only used for single Formulas. See *Figure 5.1.4.1.6.3*.

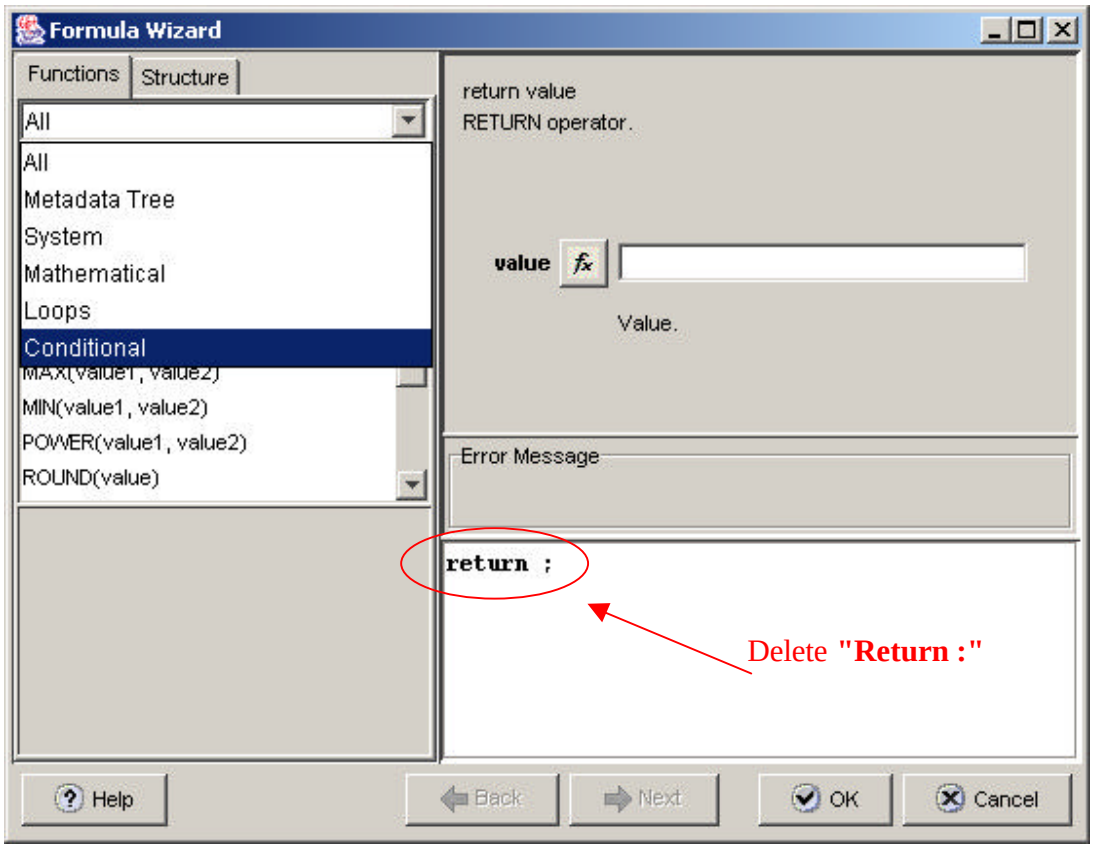


FIGURE 5.1.4.1.6.3, DELETE FIELDS

From the Functions list under the **Functions** tab, select "Conditional" to see the list of Conditional Functions. Highlight the "If (condition) {} else {} Formula" and Click on **NEXT**. The screen on *Figure 5.1.4.1.6.4* will be displayed.

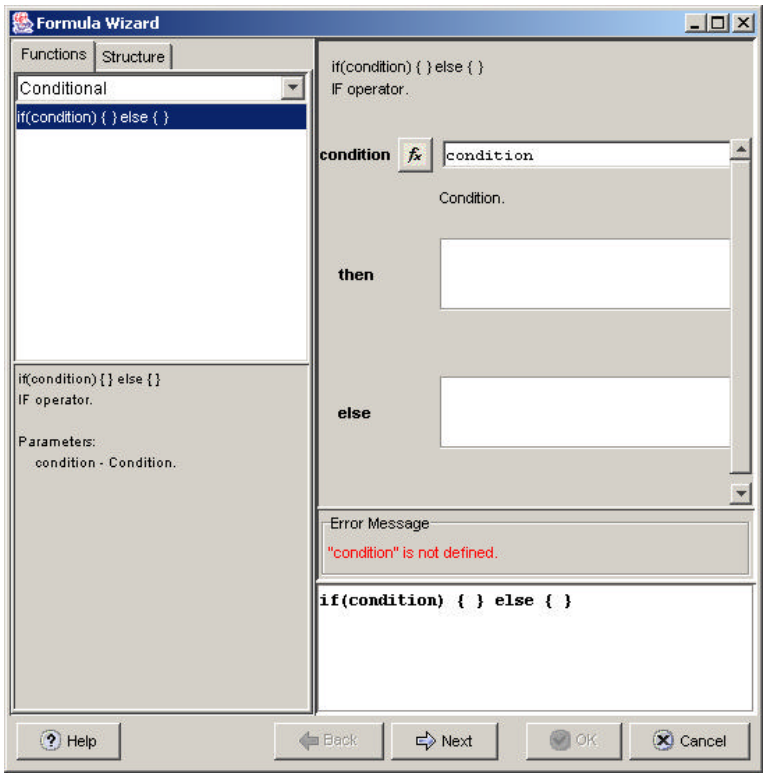


FIGURE 5.1.4.1.6.4, CONDITIONAL FORMULA

You now have the choice to either fill out the manual entry field with the conditional Formula or to use the Formula Wizard. To use the Formula Wizard, delete the word "condition" in the parameter field. From the list of functions highlight the "Lookup (node)" function. Click on **Next**. The screen on *Figure 5.1.4.1.6.5* opens:

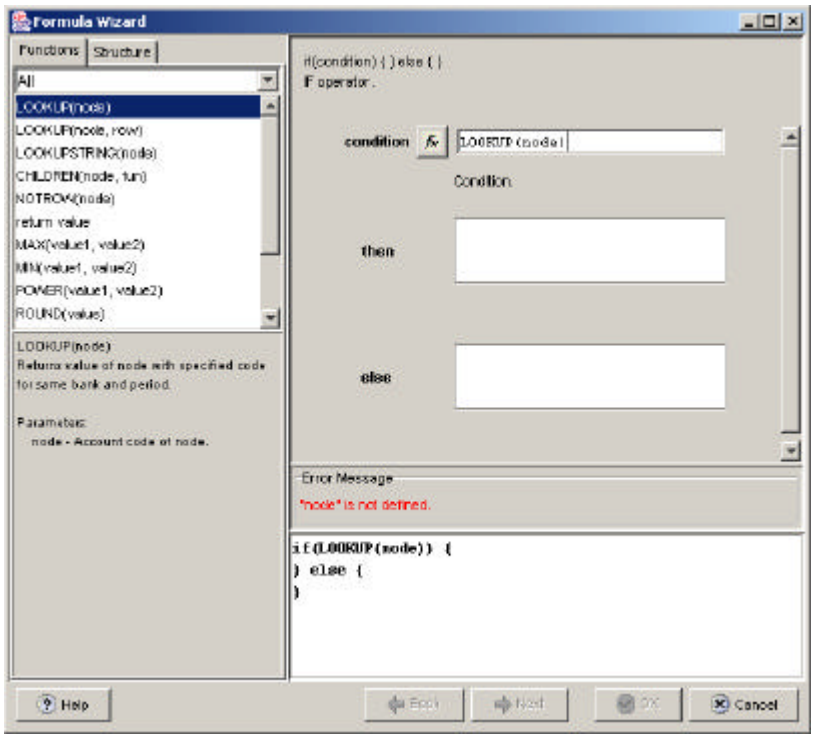


FIGURE 5.1.4.1.6.5, CONDITIONAL FORMULA PARAMETERS

In the Parameter field, enter the account code (in quotations) of the node for the "Condition" as well as the condition (i.e., >0, <0, etc.) that will be applied. Then Double-Click on the **LOOKUP** Function with the cursor in the "Then" field and type in the account codes (in quotations) for this field. Next, put the cursor in the "Else" field and Double-Click on the **LOOKUP** function and type in the account code (in quotations) for the "Else" field.

Note: If Tier1 capital is positive, then Total Capital is equal to Tier1 Capital. If Tier1 Capital is negative or 0, then Total Capital is equal to Tier2 Capital.

After completing these steps the screen such as shown in *Figure 5.1.4.1.6.6* will appear.

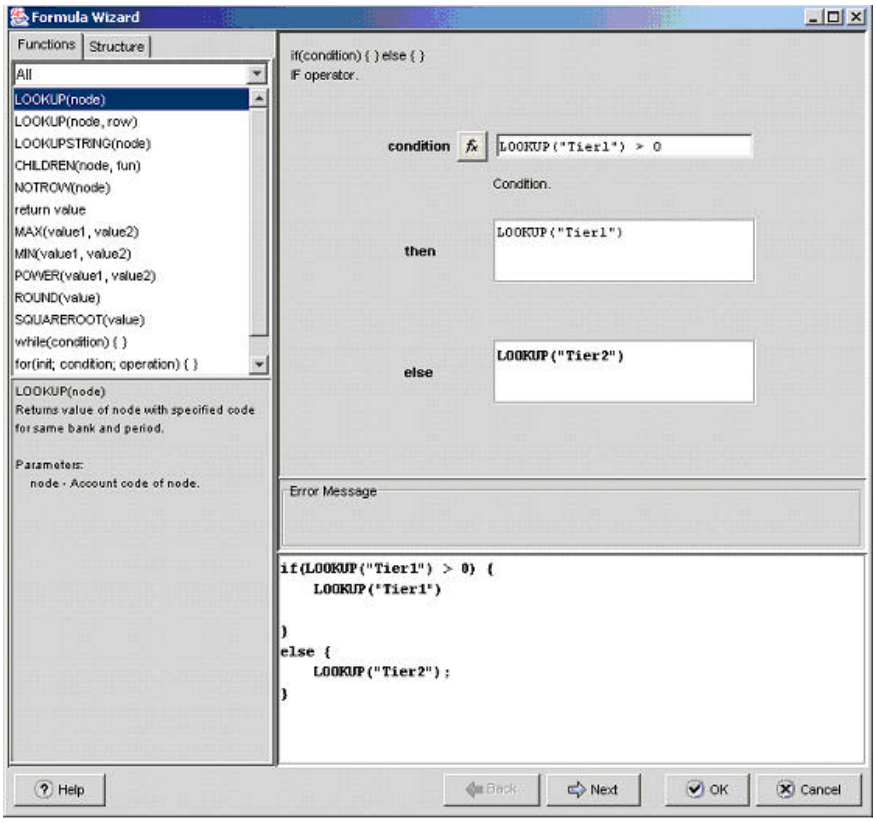
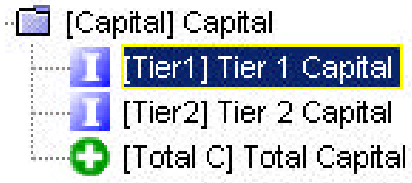


FIGURE 5.1.4.1.6.6, DEFINED CONDITIONAL FORMULA

Click on **OK** to save the Formula. The MDT now will have the following structure.



5.1.5. Define Periods

To define a period you may use the **Period Definition** menu item or the **Period Auto Insert** menu item.

Note: Define period types (monthly, quarterly, etc.) before you define a specific period.

To define a single period, Click on **Metadata/Period Definition.** The screen is shown on *Figure 5.1.5.1*.

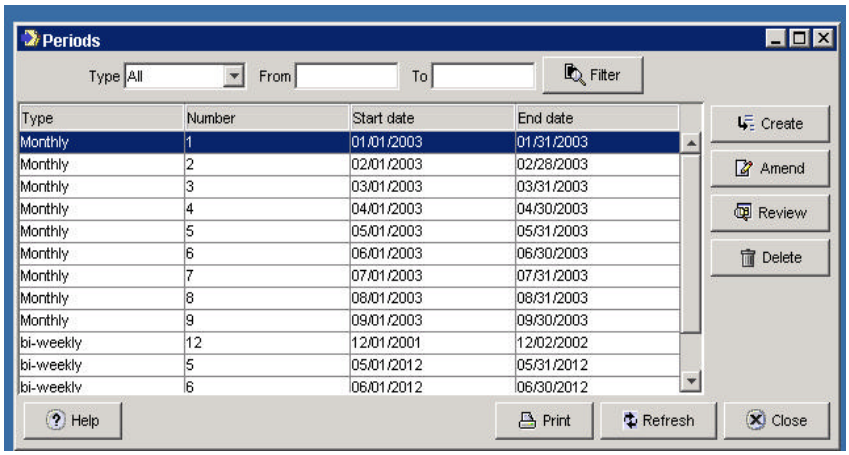


FIGURE 5.1.5.1, PERIODS LIST

Then Click on **Create** and the screen in *Figure 5.1.5.2* will open.

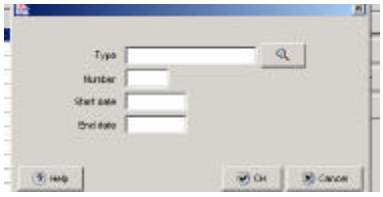


FIGURE 5.1.5.2, PERIOD DEFINITION

Enter a number for the period, start date, and end date, and select the period type from the drop-down list and Click **OK**.

Note: The date must follow the same format as the date specified under the Language menu item (under File Menu).

To create multiple periods, use the **Period Auto Insert** menu item. With this function the system can create periods that fall within a single calendar year.

Note: If a period number and the start date do not match on the Period Auto Insert screen, for example if the period number is 5 and the date is 02/01/2000, then the system will define the periods based on the period number—the 5th month or 05/01/2000.

Click on **Metadata/Period Auto Insert** and the Period Auto Insert screen similar to the one shown in *Figure 5.1.5.3* will appear.

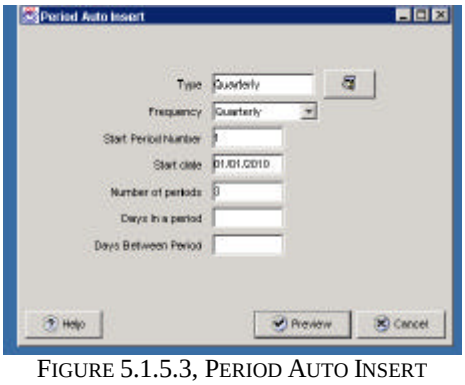


FIGURE 5.1.5.3, PERIOD AUTO INSERT

Then Click on **Preview** and the screen on *Figure 5.1.5.4* will open.

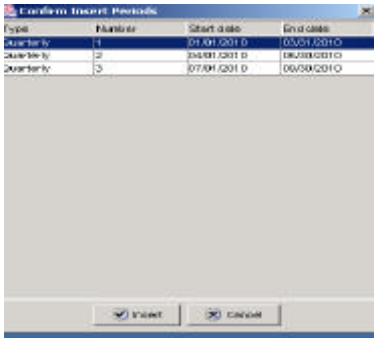


FIGURE 5.1.5.4, CONFIRM DEFINED PERIODS

Finally, Click on **Insert** to enter the newly defined periods in the system.

Note: In order for the Period Auto Insert to function, the time zone settings have to be identical on both the machine with the FinA Server and the machine with the FinA Client.

5.1.6. Define Schedules

In order to create a schedule, banks, returns, and periods must already be defined in FinA.

To create a schedule for one bank and one return, use the **Schedules** menu item under the Metadata menu. To access this menu item, Click on **Metadata/Schedules** and the screen on *Figure 5.1.6.1* will appear:

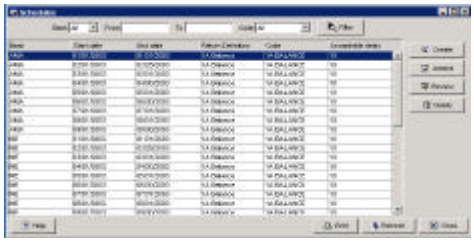


FIGURE 5.1.6.1, SCHEDULES

Then Click on **Create**. A blank schedule definition opens as shown on *Figure 5.1.6.2*.

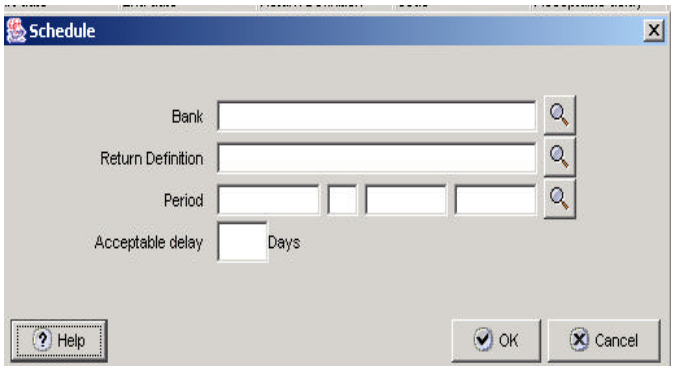


FIGURE 5.1.6.2, BLANK SCHEDULE DEFINITION

Click on the **Browser** and select the bank, return, and period for the return. Enter the number of days after the period ends that the return is a due. Click on **OK**.

The **Schedule Auto Insert** menu item facilitates the definition of multiple schedules in the FinA system. Click on **Metadata/Schedule Auto Insert** and a screen similar to the screen on *Figure 5.1.6.3* will open. Click on the **arrow** to select the bank(s) **or the double arrow** to select all banks. Click on the arrow to select return(s) or the double arrow to select all returns. Repeat this for period(s) and enter a due date (days until the deadline). Click on the **Preview** button to view the schedules that will be defined and, if correct, Click on **Insert** to finalize the definition of the set of schedules in the FinA system.

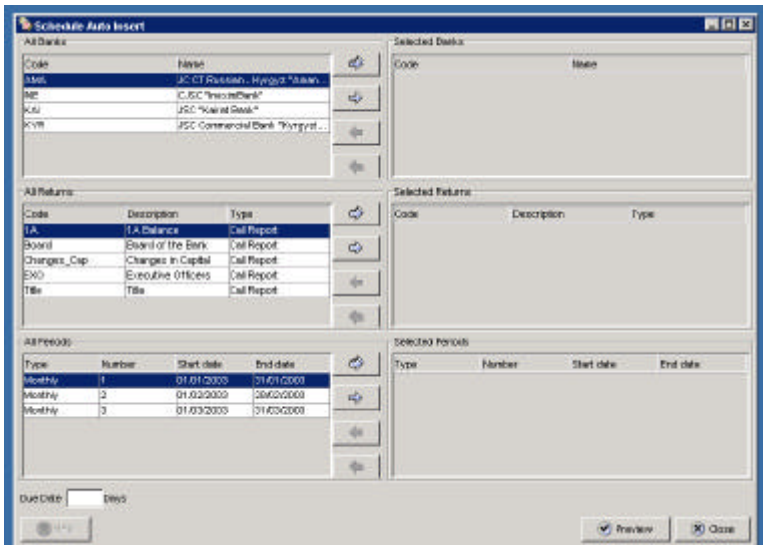


FIGURE 5.1.6.3, SCHEDULE AUTO INSERT

5.1.7. Returns

Note: the bank, period, and schedule have to be defined in FinA before you can create a return.

5.1.7.1.Return Definition

You must first define the return before uploading a bank return into FinA. To define return types, Click on **Metadata/Return Types.** The screen on *Figure 5.1.7.1.1* will open.

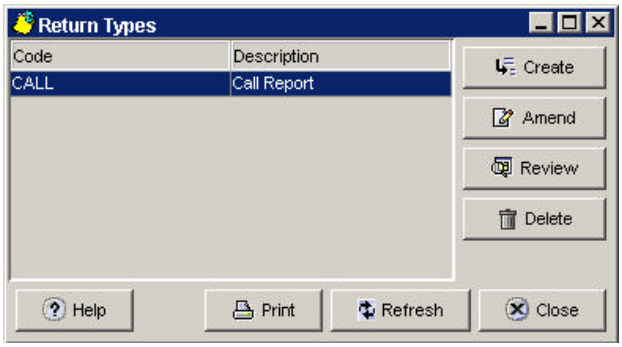


FIGURE 5.1.7.1.1, RETURN TYPES

Click on **Create** and the screen on *Figure 5.1.7.1.2* will open.

FIGURE 5.1.7.1.2, RETURN DEFINITION

Enter a return code number and the description of the return. Click on **OK** and the return type will be entered into the system.

The next step is to define the return in FinA. First Click on **Metadata/Return Definition** and the screen on *Figure 5.1.7.1.3* will open.

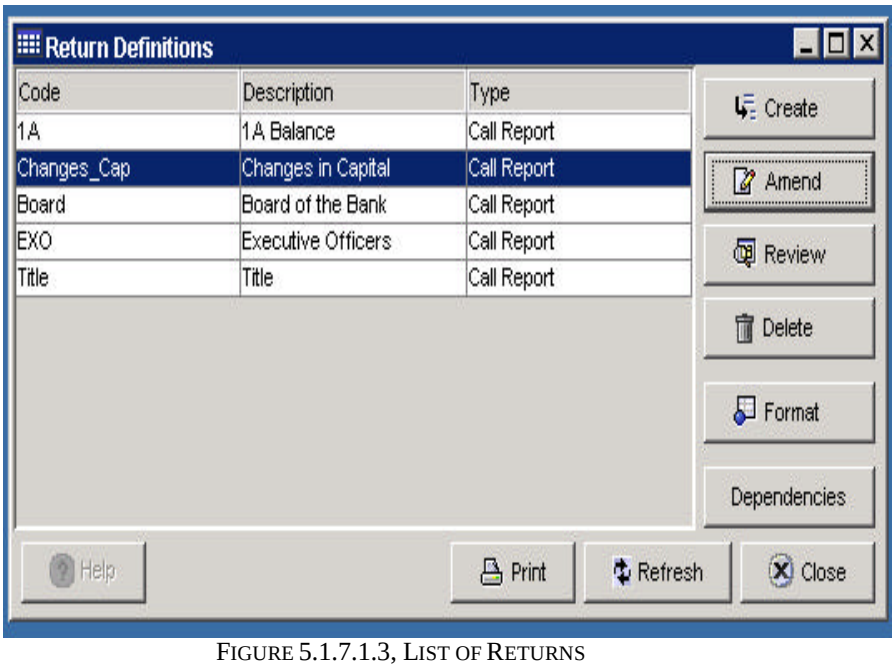


FIGURE 5.1.7.1.3, LIST OF RETURNS

Then Click on **Create**. The screen in *Figure 5.1.7.1.4* opens.

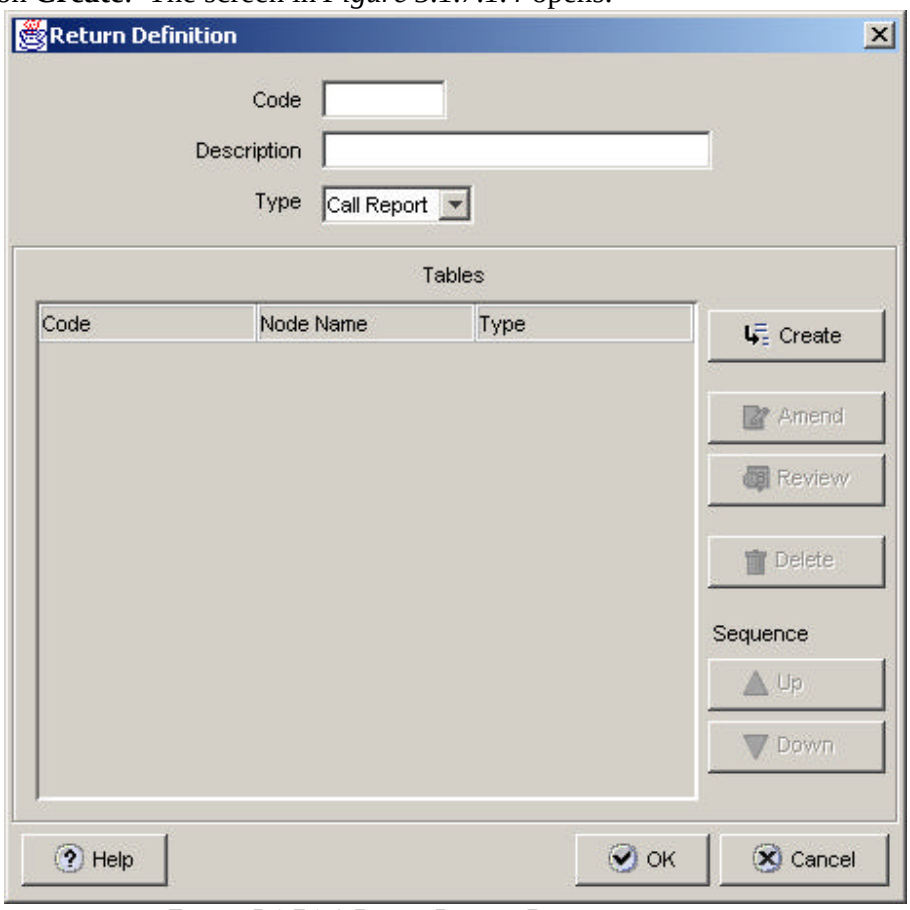


FIGURE 5.1.7.1.4, BLANK RETURN DEFINITION

Fill in the Code and Description fields. Select the type of the return from the drop-down list in the Type field.

Click on **Create** and the screen on *Figure 5.1.7.1.5* will display.

FIGURE 5.1.7.1.5, RETURN DEFINITION TABLE

In this screen the table for the return is defined. Enter the code number for the return. Select the element (node, input, variable) from the MDT that will form part of the return by Clicking on the Browser icon, which brings up the Metadata Screen. Highlight the element from the MDT and Click **OK**. Enter a number for the level of elements on the MDT, which you would like to be included in the calculations (for example, if you enter 10, all MDT elements, levels 1 through 10 will be included). Select the type of table from the drop-down list. If applicable, select an evaluation method from the drop-down list and Click **OK**.

5.1.7.2.Formatting

Once a return is defined, you may need to format it. This is very helpful when you have returns with several tables that include different types of data. To format a return, Click on **Metadata/Return Definition**. From the list of returns, highlight the return you want to format and Click on **Format**. An example of a non-formatted return is shown on *Figure 5.1.7.2.1*.

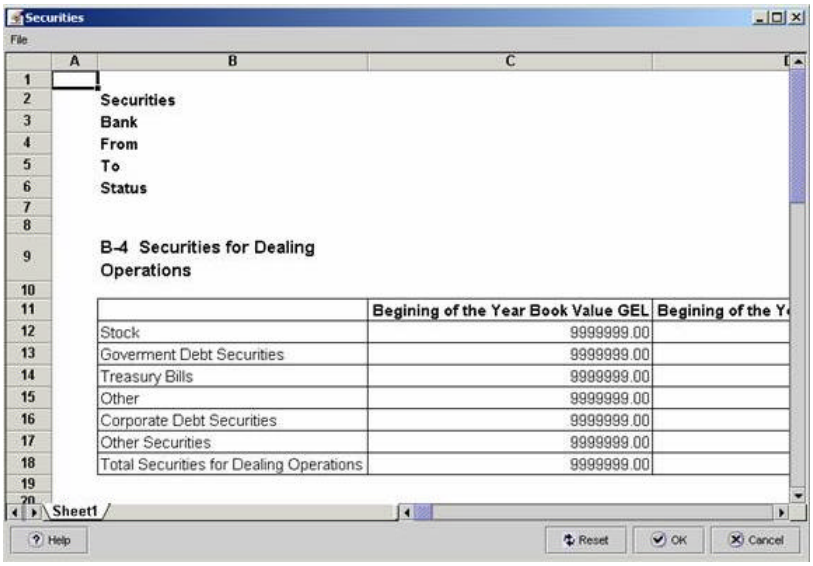


FIGURE 5.1.7.2.1, NON-FORMATTED RETURN

To format a return, right-Click on the **cell, column,** or **row** you wish to format. The screen on *Figure 5.1.7.2.2* will appear. This screen allows you to use standard spreadsheet tools to format the return. You can also add text at the end (or the beginning) of the return.

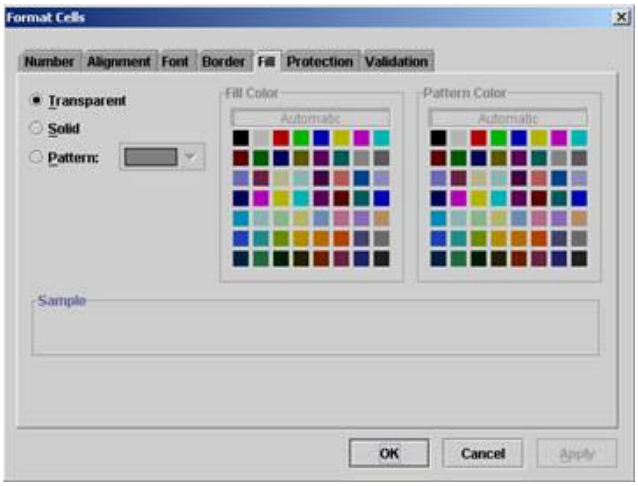
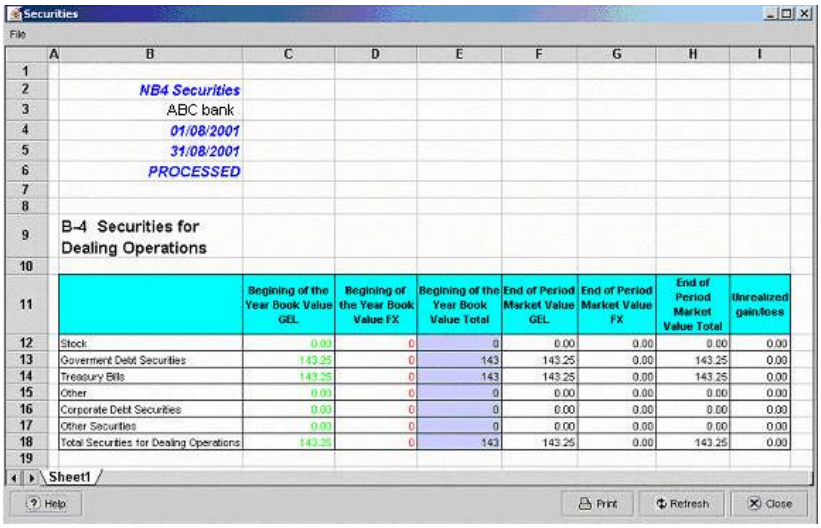


FIGURE 5.1.7.2.2, FORMAT CELL

An example of a formatted return is shown on *Figure 5.1.7.2.3*.



	Begining of the Year Book Value GEL	Begining of the Year Book Value FX	Begining of the Year Book Value Total	End of Period Market Value GEL	End of Period Market Value FX	End of Period Market Value Total	Unrealized gain/loss
Stock	0.00	0	0	0.00	0.00	0.00	0.00
Goverment Debt Securities	143.25	0	143	143.25	0.00	143.25	0.00
Treasury Bills	143.25	0	143	143.25	0.00	143.25	0.00
Other	0.00	0	0	0.00	0.00	0.00	0.00
Corporate Debt Securities	0.00	0	0	0.00	0.00	0.00	0.00
Other Securities	0.00	0	0	0.00	0.00	0.00	0.00
Total Securities for Dealing Operations	143.25	0	143	143.25	0.00	143.25	0.00

FIGURE 5.1.7.2.3, FORMATTED RETURN

5.1.7.3.Returns Dependencies

It is very important for the designers of the MDT to know the dependencies that exist between the returns in FinA. For a graphical presentation of the relationships between the returns, Click on **Dependencies** on the Return Definition Screen. An example of the links between the returns is shown on *Figure 5.1.7.3.1*:

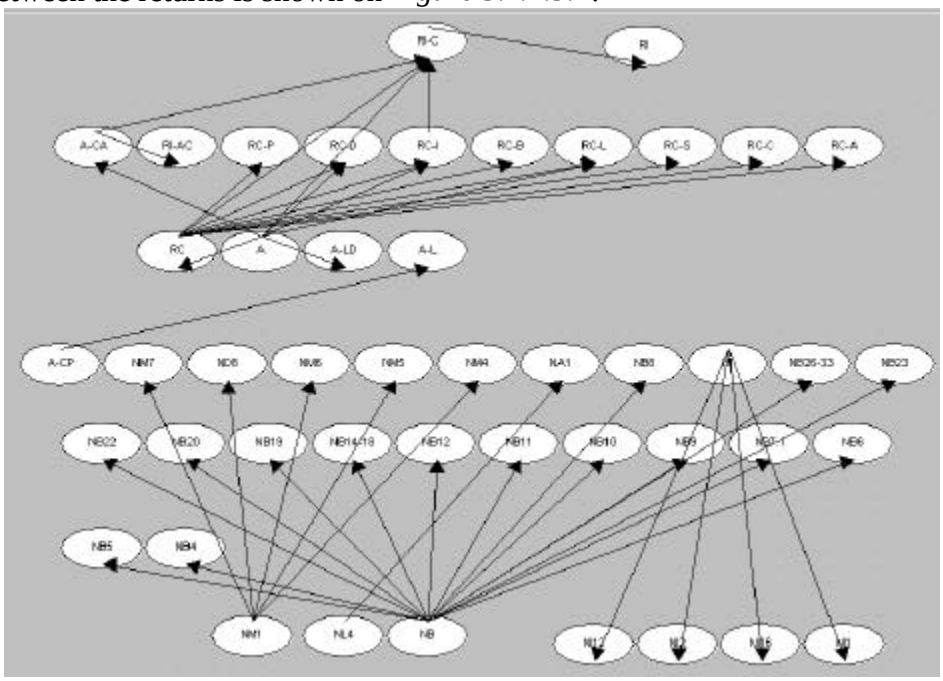


FIGURE 5.1.7.3.1, DEPENDENCIES

5.1.8. Reports

5.1.8.1.Concept of Reporting

The main function of FinA is to process the information that is contained in the returns received from the commercial banks and to generate output reports that can be analyzed by the Supervisory Agency.

The output reports in FinA have two of the following in horizontal and vertical dimensions.

- Banks
- Nodes (items/variables)
- Periods

Examples:

A. Time Series Report for indicator ***i*** has banks for the vertical dimension, periods for the horizontal dimension, and nodes for the output field. See the table below:

	1st month	2d month	3d month
Bank A	10	20	30
Bank B	10	20	30
Bank C	10	20	30

B. Report (Aggregated balance for month X) has banks for the horizontal dimension, items for the vertical dimension, and nodes for the output field. See the table below:

	Bank A	Bank B	Bank B
Cash	10	20	40
Securities	10	20	40
Loans	10	20	40
Fixed Assets	10	20	40
Other Assets	10	20	40
Total Assets	60	100	200

C. Comparative Report For Bank A has periods for the horizontal dimension, items for the vertical dimension, and bank information for the output fields.

	Period 1	Period 2	Period 2
Cash	10	20	40
Securities	10	20	40
Loans	10	20	40

Fixed Assets	10	20	40
Other Assets	10	20	40
Total Assets	60	100	200

The report designer in FinA gives the user the choice to define dimensions and to define output fields. The primary tool used to define dimensions is the Iterator.

Another characteristic of a report is the Parameter. In Example A, the banks and the periods can be defined by the Iterators, and the indicator "***i***" is the Parameter.

After the dimensions are defined, then the output fields must be defined. This is done by using FORMULAS. Formulas can be defined for each specific report or can be defined for use in multiple reports and stored in the FORMULA REPOSITORY.

5.1.8.2.Report Manager

The **Report Manager** menu item contains all of the screens for report definition and generation. Refer to Chapter 5.1.8.10, Generating Reports of this manual for information and instructions on generating reports using the Report Manager menu item.

5.1.8.3.Description of the Report Designer Screen

The standard output reports should be pre-defined in FinA. To define a report, open **Reports/Report Manager**. Highlight the place on the reports tree where you want your new report created. Click on **Create** and the screen in *Figure 5.1.8.3.1* will be displayed:

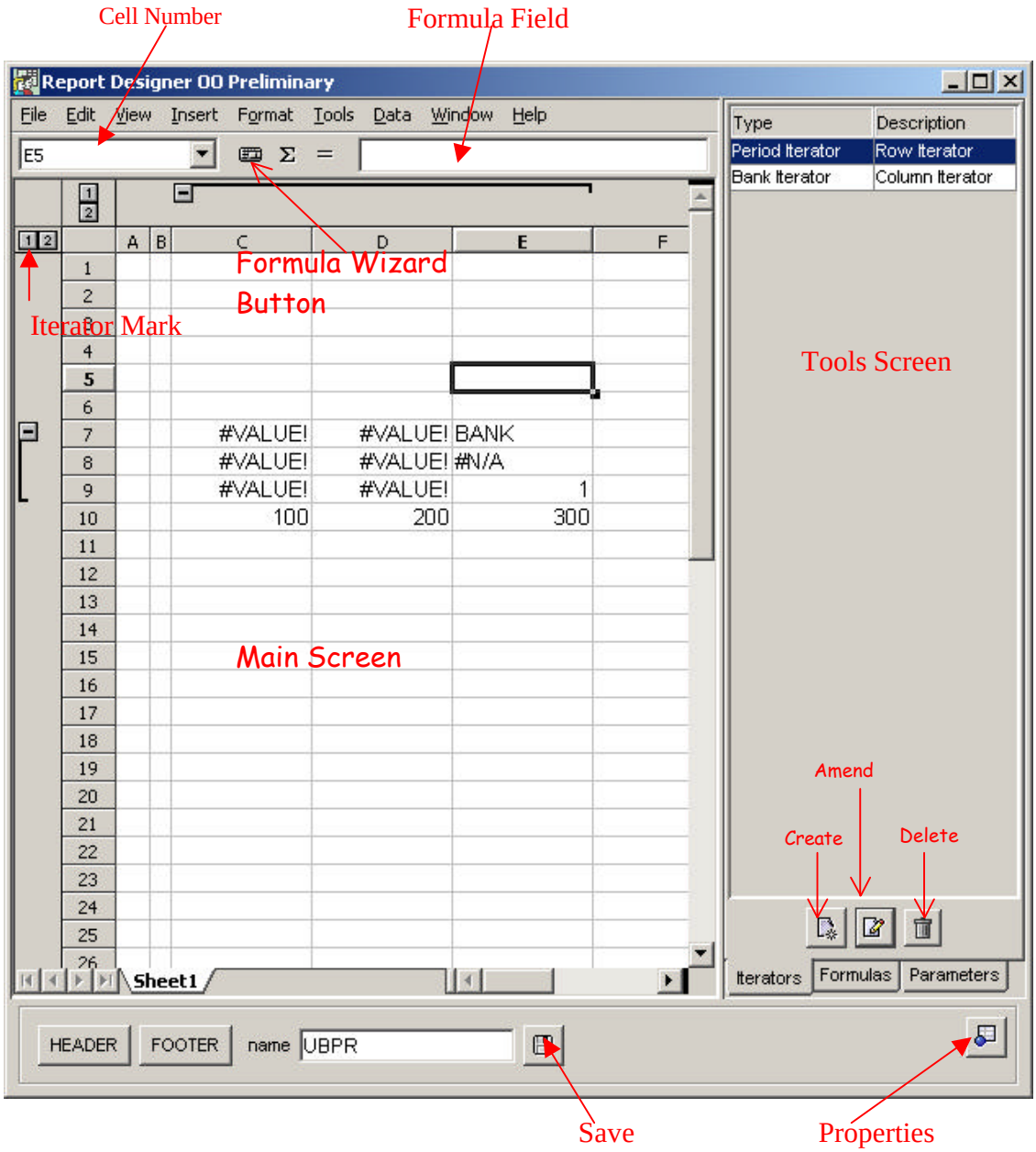


FIGURE 5.1.8.3.1, REPORT DESIGNER FIELDS

Description of the fields:

- Main screen – contains the spreadsheet area
- Tools screen – contains tools to create Iterators (see definition next page), Formulas, and parameters
- Tool Bar – this is the standard toolbar for OpenOffice Calc
- Cell Number – identifies the selected cell
- Formula Field – displays the Formula in the selected cell
- Formula Wizard Button – opens the Formula Wizard. See Chapter 5.1.4.1, Wizards for instructions on how to work with the wizard

- Name field – the name of the report is entered here
- Iterator Mark - indicates a position in the data structure for the Iterator (that defines dimensions)
- Formula Properties - indicates parameters of the Formulas in the repository
- Iterators/Formulas/Parameters tabs – contain the tools for the iterators/Formulas/parameters.
- Create/Amend/Delete Buttons – used to create/amend /delete Iterators/Formulas/ periods. They apply to the active Tab only.
- Header Button – used to define the header
- Footer Button – used to define the footer

Definition for **iteration**: Repetition of a sequence of instructions. A fundamental part of many algorithms. Iteration is characterized by a set of initial conditions, an iterative step, and a termination condition.

5.1.8.4.Iterator Tab

Iterators are used to define the vertical and horizontal dimensions of a report.
To start the Iterator Wizard, Click on **the Iterator Tab** then Click on **the Create button** (above the Iterator Tab). The screen on *Figure 5.1.8.4.1* will appear.

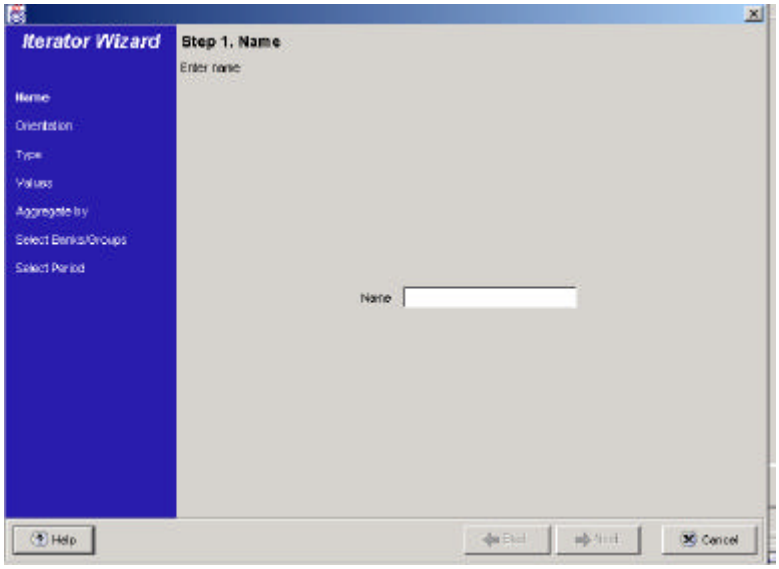


FIGURE 5.1.8.4.1, ITERATOR STEP 1

Enter the name that you want to give the Iterator and Click on **Next**. The screen on *Figure 5.1.8.4.1* will be displayed. Choose the orientation (Rows or Columns) for the Iterator. In the example "Rows" have been chosen.

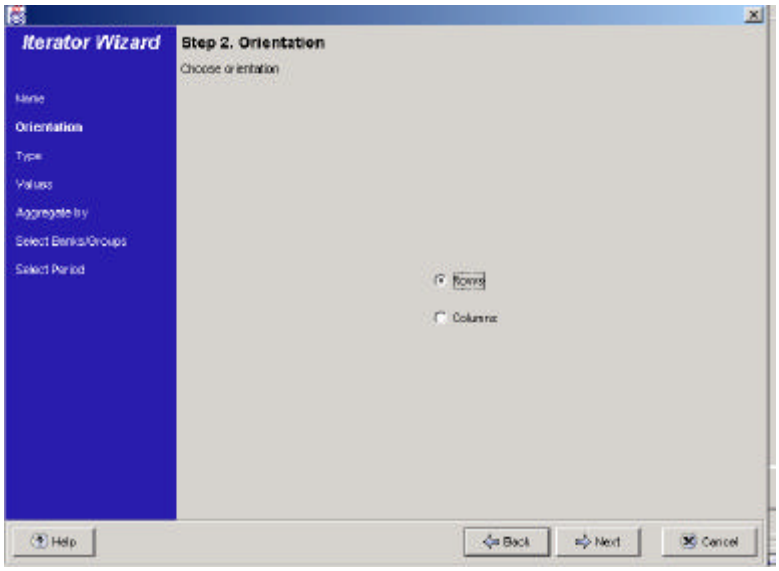


FIGURE 5.1.8.4.2, ITERATOR STEP 2

Click on **Next**. The screen on *Figure 5.1.8.4.3* will open. Choose the type for the Iterator from the drop-down list.

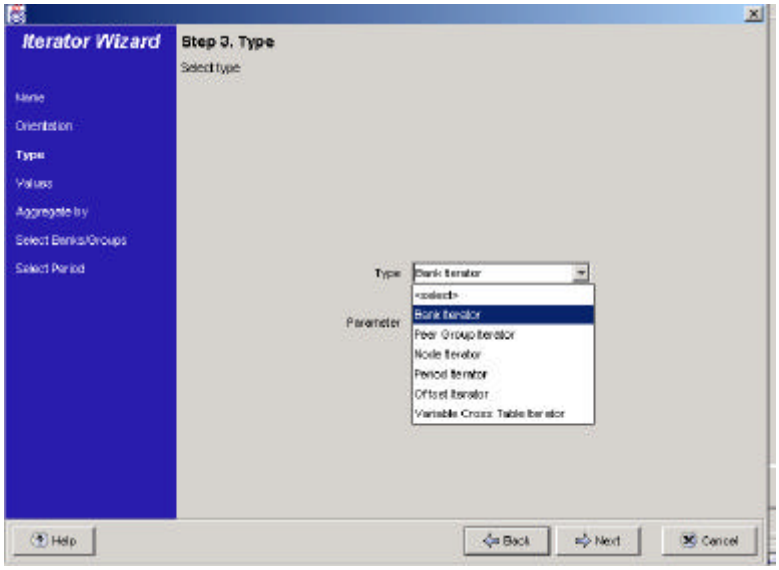


FIGURE 5.1.8.4.3, ITERATOR STEP 3

In this example, the BankIterator has been highlighted. Click on **Next** and the screen in *Figure 5.1.8.4.4* will open. You can specify the individual value for the Iterator, (in this case "banks") by choosing from the table on the left and Clicking on the **single arrow button**. You can also leave that field empty and select the appropriate parameters (in this case "banks") during the report generation process. Click on **Finish**.

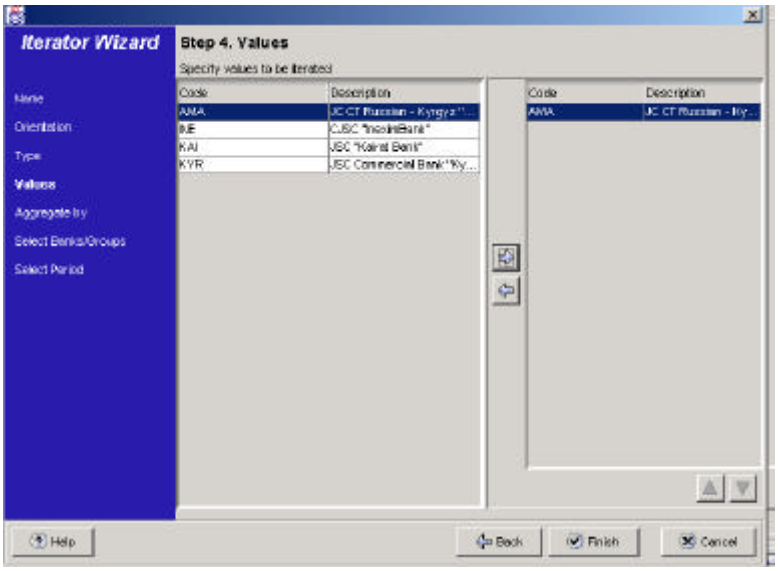


FIGURE 5.1.8.4.4, ITERATOR STEP 2

5.1.8.4.1. Iterator for Variable Cross Tables (VCT)

A VCT has a variable number of columns and a variable number of rows. A VCT is usually a list (i.e., list of shareholders, list of management, list of branches, etc.). Column one is used to number the items. See the table below.

RESIDENT SHAREHOLDERS

No.	Shareholder (partner)	State owned/private	Stated amount	Capital share	Paid in capital	
					amount	Share
1						
2						
3						
4						
.						
.						
.						
N						

Reports based on VCTs can be divided into two groups:

- static reports for a fixed period of time and set of banks
- dynamic reports with unique entries from a specific VCT

VCTs can be designed with the help of a special Iterator that is called "VCT Iterator". The VCT Iterator is normally used as a row Iterator. After you enter the name you want to give this Iterator and choose the "rows" orientation, then in Step 3 select the VCT Iterator from the drop-down list of types of Iterators. See *Figure 5.1.8.4.1.1*.

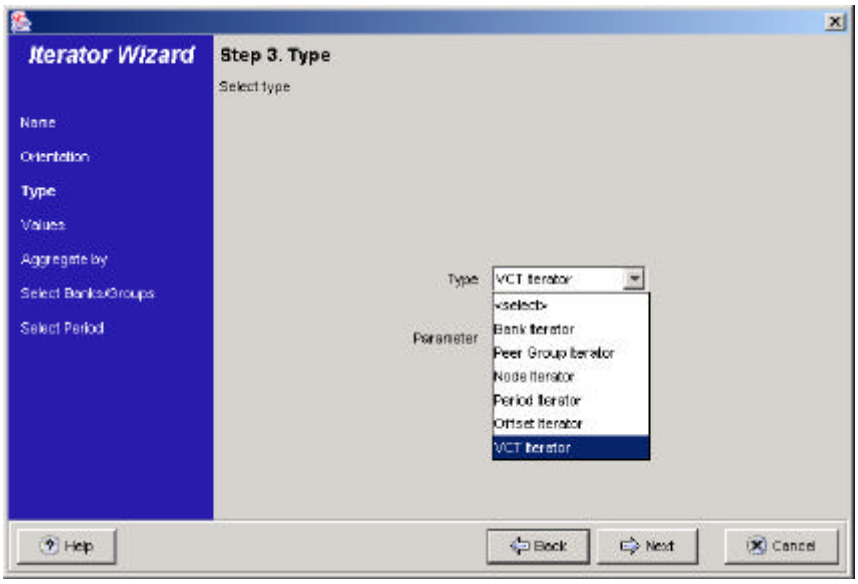


FIGURE 5.1.8.4.1.1, VCT ITERATOR STEP 3

In Step 4, the value for the Iterator must be specified. Clicking on the **Browser button** for the Table field brings up the Return Definition Table screen. See *Figure 5.1.8.4.1.2*. Highlight the VCT return that you want to use and Click **OK**.

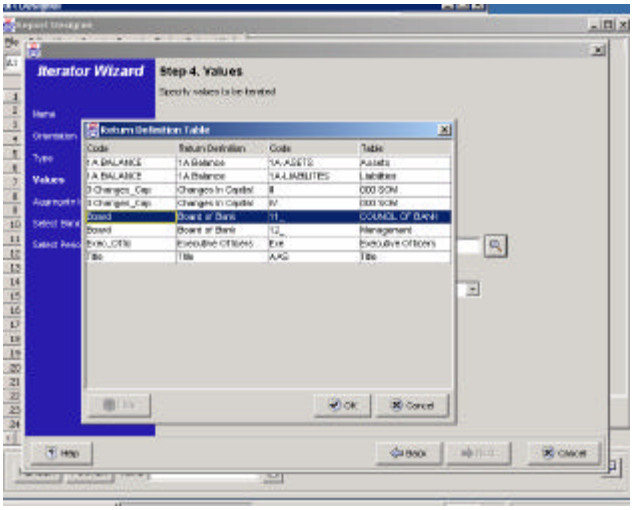


FIGURE 5.1.8.4.1.2, VCT ITERATOR STEP 4

Then select the "Group by" criteria from the drop-down list. You may group returns by Banks or Peer Group. See *Figure 5.1.8.4.1.3*.

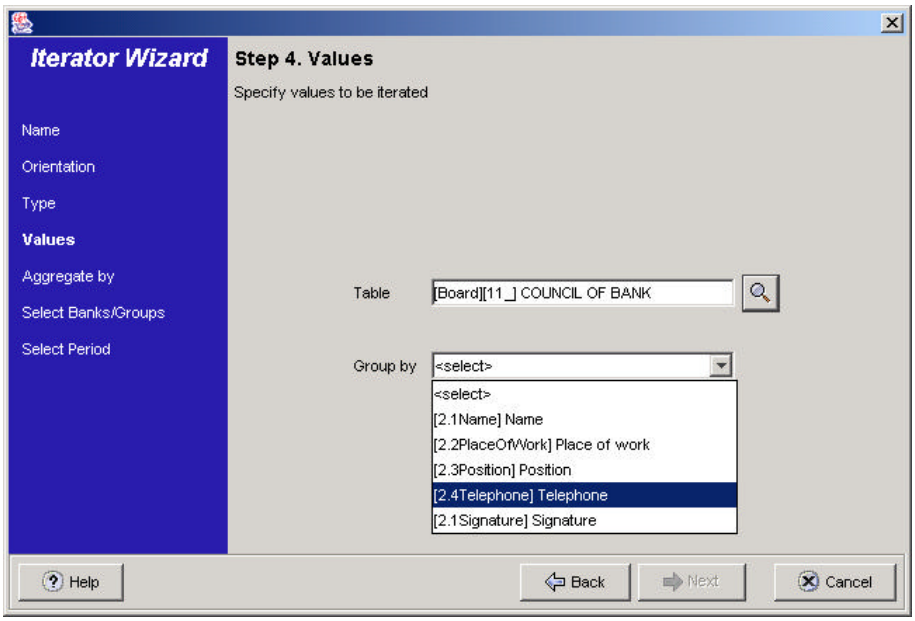


FIGURE 5.1.8.4.1.3, VCT ITERATOR STEP 4, GROUP

Typically, the user will need to aggregate using the bank Iterator. Click on **Next**. The screen on *Figure 5.1.8.4.1.4* opens:

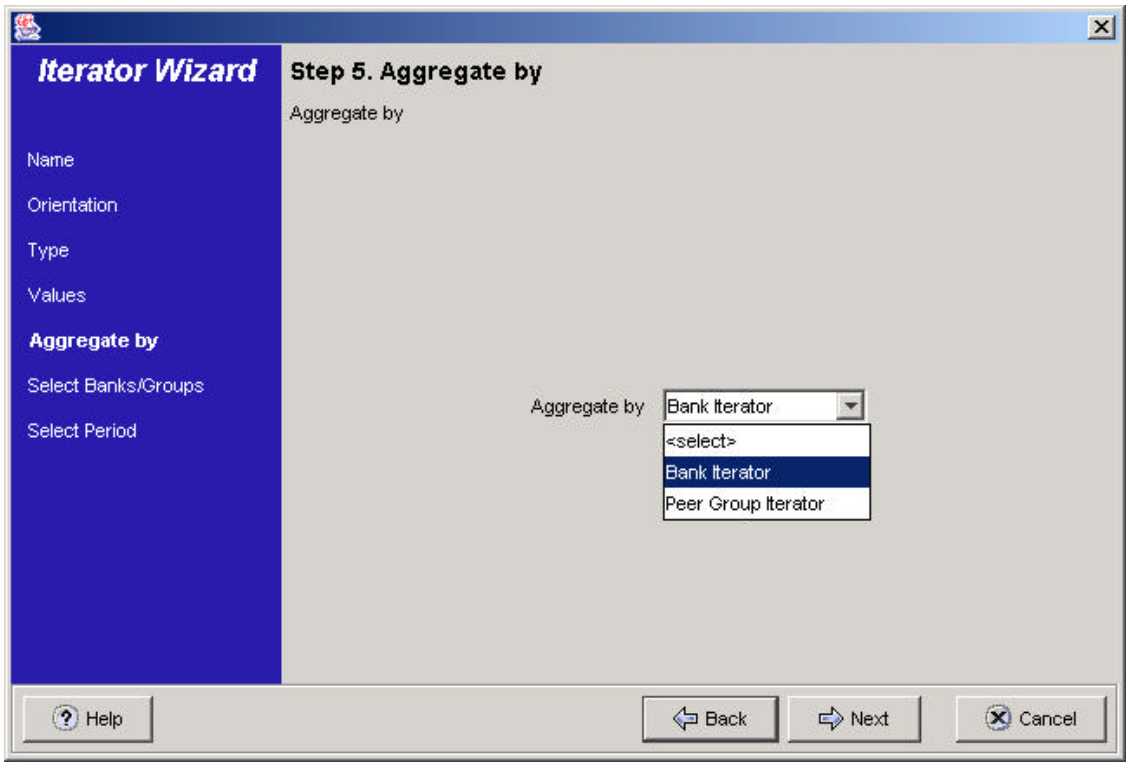


FIGURE 5.1.8.4.1.4, VCT ITERATOR STEP 5

On the next screen (see *Figure 5.1.8.4.1.5*) you will have to select the specific banks (or groups if you selected the peer group Iterator).

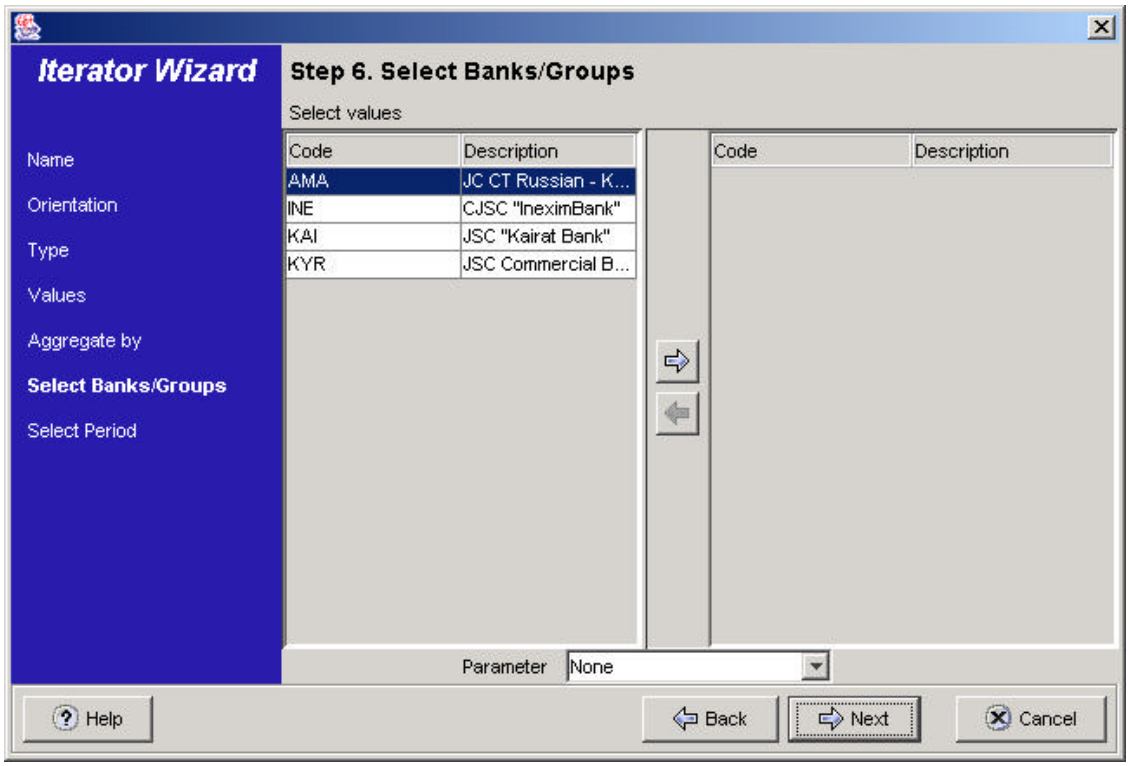


FIGURE 5.1.8.4.1.5, VCT ITERATOR STEP 6

The user can select banks using this screen or leave the list empty and select the banks during the report generation process. Similarly, the user can select Periods (*Figure 5.1.8.4.1.6* below)

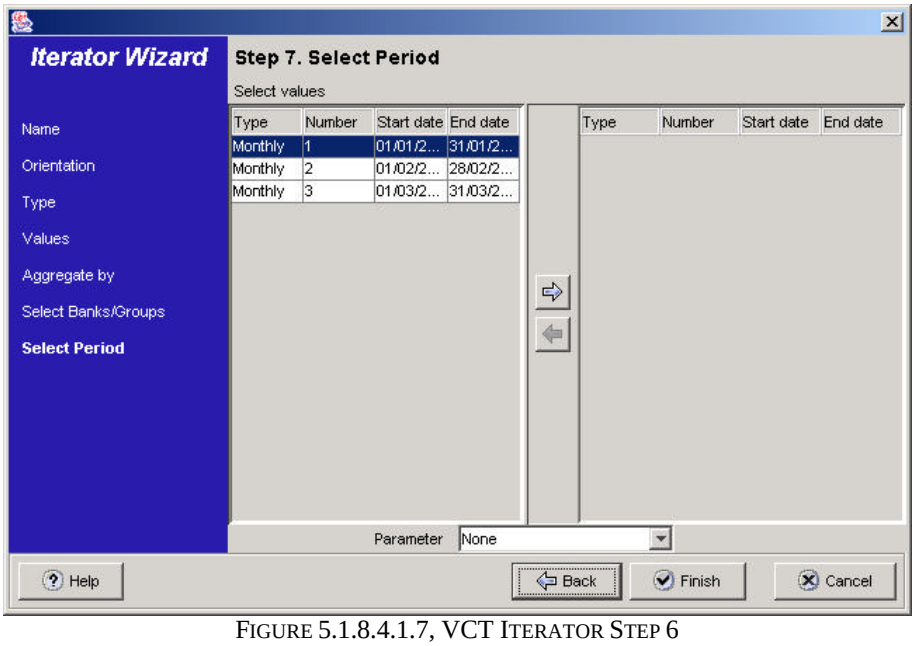


FIGURE 5.1.8.4.1.7, VCT ITERATOR STEP 6

Click on **Finish** after you make the selection. This completes the definition of the VCT Iterator and closes the Formula Wizard.

5.1.8.5.Formula Tab (Repository)

Certain Formulas will be used in numerous reports. These Formulas can be placed in the Formula Repository where they can be accessed during the report building process. This tool can be found in the report designer under the Formula Tab.

Clicking on the **Formulas** Tab gives the user access to the Formula Repository. See *Figure 5.1.8.5*. The Formula Repository has a tree-like structure. The buttons at the bottom of the screen have the following functions:

 - Creates a new Formula in the repository. The Formula is entered in Java script format

 - Amends Formula

 - Deletes Formula from the repository

 - Creates new folder for Formulas

To add a new Formula,  Click . The Formula amend/create screen appears. See *Figure 5.1.8.5.1*. To create a Formula in the depository, follow the steps below:

- In the Formula name field, enter a name for the Formula that best describes the Formula in order that it may be easily identified.
- In the Formula parameters field enter the name of the parameter. A Formula may have several parameters
- Then Click on the drop-down list and choose the type of parameter: Bank, Period, Period Offset, Peergroup, Node.
- Click on **OK**
- Then type the Formula on the Formula screen (the syntax for Formulas is the same as is described earlier in this chapter). Parameters in the Formula repository, however, begin with the @ symbol i.e. @node

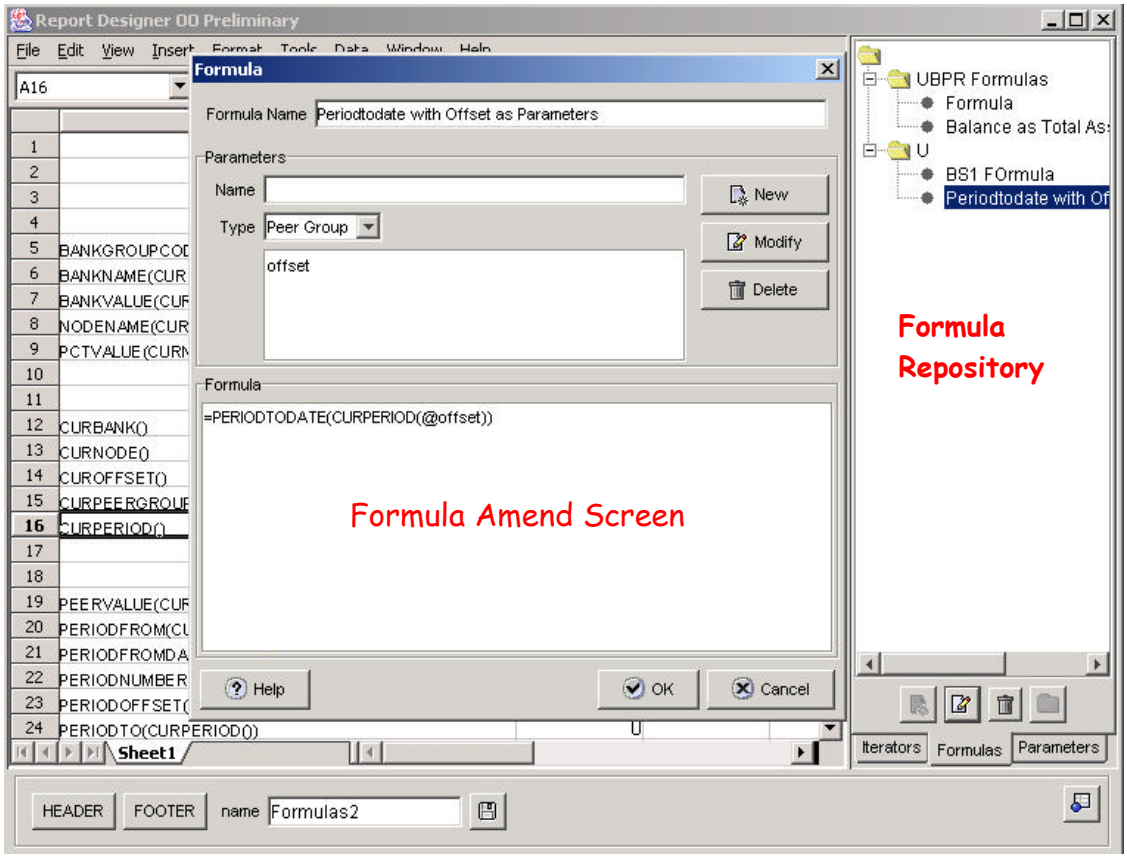


FIGURE 5.1.8.5.1, FORMULA DEFINITION

Once the Formulas have been entered in the Formula Repository, you can begin to use them to build reports. To access Formulas from the repository:

- Open the report or create a new one
- Click on **Report Manager/Report Designer**
- Click on the **Formula** Tab
- Select the appropriate Formula from the list
- Drag & drop it in the spreadsheet cell where you want the Formula.
- If the Formula contains a parameter, then a screen will open with fields for each one of the parameters that need to be defined.
- Enter the value for the parameters and Click on **OK**.
- In the cell where the Formula is placed, the words "Repository Formula" will appear and in the Formula bar you will see the name of the Formula and the value of the parameters.

See *Figure 5.1.8.5.2.*

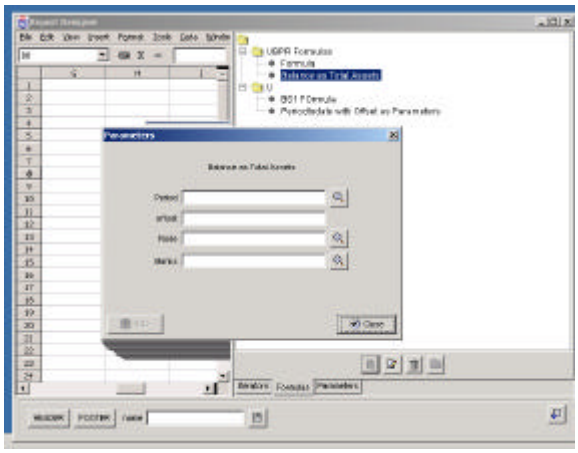


FIGURE 5.1.8.5.2, PARAMETERS DEFINITION

Click on **Close** after you define all parameters. This will close the Parameters screen and the Formula will get recorded in the spreadsheet.

5.1.8.6.Parameters Tab

The concept and procedures are similar to those used to define Iterators. Refer to Chapter 5.1.8.4, Iterator Tab for instructions.

5.1.8.7.Formulas Description

Formulas in FinA are divided into two groups:

- Spreadsheet Formulas - originally programmed in OOC
- FinA Formulas - special tools for financial analysis

The spreadsheet Formulas are identical to the Formulas used in Excel, Lotus 1-2-3, Formula One, etc.

List of Formulas Used in FinA

CURBANK() - returns account code of the current bank
CURNODE() - returns account code of the current node
CUROFFSET()- returns period offset for current (iterated) period
CURPEERGROUP() - returns peer group of the current (iterated or selected) bank
BANKGROUPCODE (bank) - returns defined, current (iterated or selected) bank's group name.
Parameters: "bank" is bank's account code
Example: BANKGROUPCODE ("AMA") result "Small"
BANKNAME(bank) - Returns current (or selected) bank's group name, for instance -
Parameters: "bank" is bank's account code
Example: BANKNAME("AMA) result : JC CT Russian - Kyrgyz "AmanBank"

BANKVALUE (node, bank, period, function, offset) - returns Value of node, for defined (current) bank, in given period with given period function.

Parameters:
Node - account code of item/variable from MDT
bank - bank's account code
period - ID of the period
function - "sum" , "min", "max" , "average".
Offset - number for next/previous periods. -1 means previous period (month if selected period is month), 1 means next month, 2 means two months later, etc. if there no offset then 0 is mandatory.
Example: BANKVALUE("TA";"AMA";CURPERIOD();"sum";0) means Total Assets ("TA") for AmaBank ("AMA") for selected period (predefined in report designer or selected during generation).

NODENAME(node) returns name (description) of the given node

Parameters: "node" is account code of the node (input/variable)
Example: NODENAME("TA") returns "Total Assets"

PCTVALUE(node; bank; peergroup; period; function; offset) is a rank of the given bank in a group defined by given node (input/variable) for a given period.

Parameters:
Node - account code of item from the MDT
bank - bank's account code
peergroup - relevant peergroup account code.
period - ID of the period
function - "sum" , "min", "max" , "average".
Offset - number for next/previous periods. -1 means previous period (month if selected period is month), 1 means next period (month if selected period is a month), if there is no offset then 0 is mandatory.
Example:
PCTVALUE("TA"; "AMA";"Small";CURPERIOD();"average";0) result is 1, because AMANBANK bank is the largest bank and has biggest total assets for given (selected) period.

PEERVALUE(node;peergroup;groupFunction;period;periodFunction;offset) returns given value for whole group calculated with given Formula (sum, average, etc)

Parameters:
Node - account code of item/variable from MDT
Peergroup- peergroup account code.
groupFunction - Function to calculate given input/variable for group, it can be "sum", "average", "min", "max", etc…
period - ID of the period
periodFunction - function for subperiods.
Offset - number for next/previous periods.
Example: PEERVALUE("TA";"Medium";"average";CURPERIOD(); "average";0) will calculate average total Assets for medium banks for selected period.

PERIODFROMDATE(period) returns start date for given period
Parameters: period - ID of the period
Example: PERIODFROM("3") result is 01/03/2003 (March 1, 2003)

PERIODTODATE(period) returns end date for given period
Parameters: period - ID of the period
Example: PERIODFROM("3") result is 31/03/2003 (March 31, 2003)

PERIODNUMBER(period) returns period number for given period
Parameters: period - ID of the period
Example: PERIODNUMBER("3") returns 3

PERIODOFFSET(period; offset) returns number of next (previous) periods
Parameters:
Period - ID of the period
Offset
Example: PERIODOFFSET("3"; -1) returns 2

PERIODTYPECODE(period) returns account code of the type of given period
Parameters: period- account code of the period
Example: PERIODTYPECODE(CURPERIOD()) returns MNT, if user selected any monthly period

PERIODTYPENAME(period) returns type of given period
Parameters: period- account code of the period
Example: PERIODTYPECODE(CURPERIOD()) returns Monthly , if user selected any monthly period

VCTVALUE (nodecode; iterName; groupByvalue; function)
nodecode - account code of the input or variable you want aggregated
iterName- name of the iterator
groupByvalue - account code of the item or variable which is used to group by value
function - function of the aggregation. It can be: "sum", "average", "min", "max"

A user can enter Formulas manually or use a Formula Wizard. To enter the Formula manually, type "=" and then the Formula in the Formula Field of the Report Designer screen (see *Figure 5.1.8.5.1*). To use the Formula Wizard, Click on the **wizard button** on the Report Designer screen (see *Figure 5.1.8.3.1*). Instructions on the Formula Wizard are provided in Chapter 5.1.8.5, Formula Tab (Repository).

5.1.8.8.Formula Wizard

To start the Formula Wizard, Click on **button** on the Report Designer toolbox on the top of the screen. A standard wizard interface appears. See *Figure 5.1.4.1.3.1*. Please refer to Chapter 5.1.4.1.3, The Formula Wizard Screen for a description of the standard fields. Additional functions are added to the list of Formulas. See *Figure 5.1.8.8.1*.

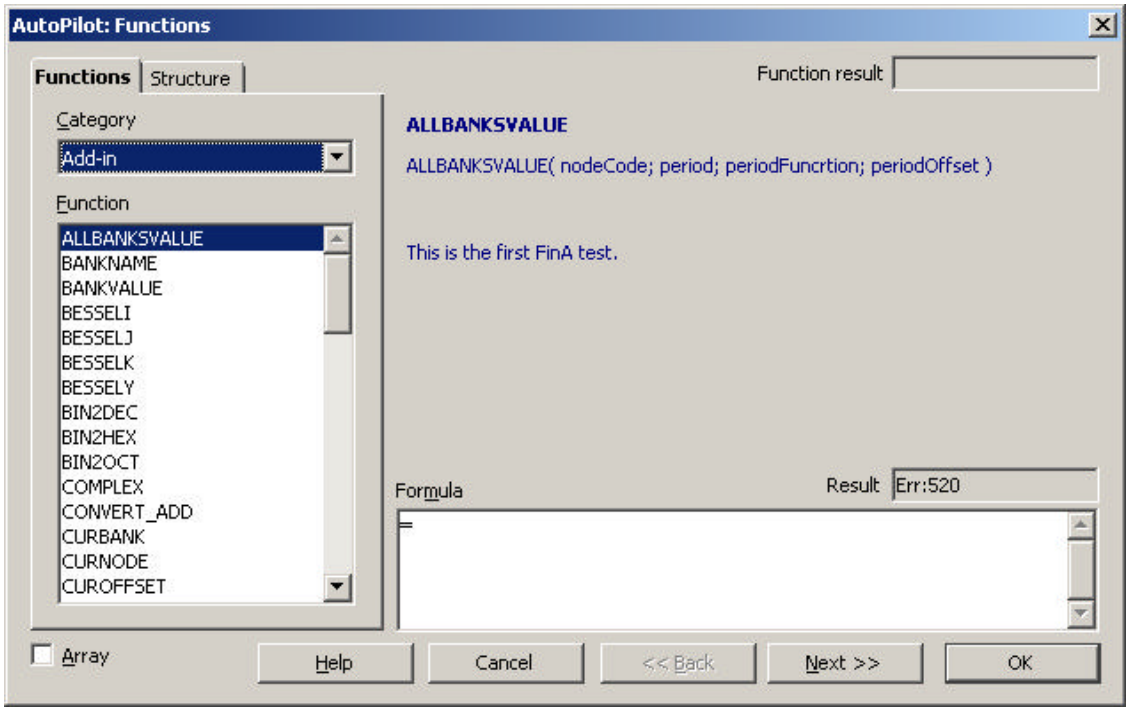


FIGURE 5.1.8.8.1, FUNCTIONS

Clicking on the Functions Tab brings a list of all Formulas defined in FinA. They are divided into categories. All FinA Formulas are located in the Add-in category. The remaining categories include: Database, Date and Time, Financial, Information, Logical, Mathematical, Array, Statistical, Spreadsheet and Text. These are standard spreadsheet Formulas (i.e., Excel, Formula1, Lotus 1-2-3, etc.).

Highlight a Formula on the list and Click on the **Structure** Tab. A screen that contains the structure of a Formula in a tree-like format is presented. This visual presentation is helpful for long, complicated Formulas, like: FV(D17,ABS(E17);I15;J17). See *Figure 5.1.8.8.2*:

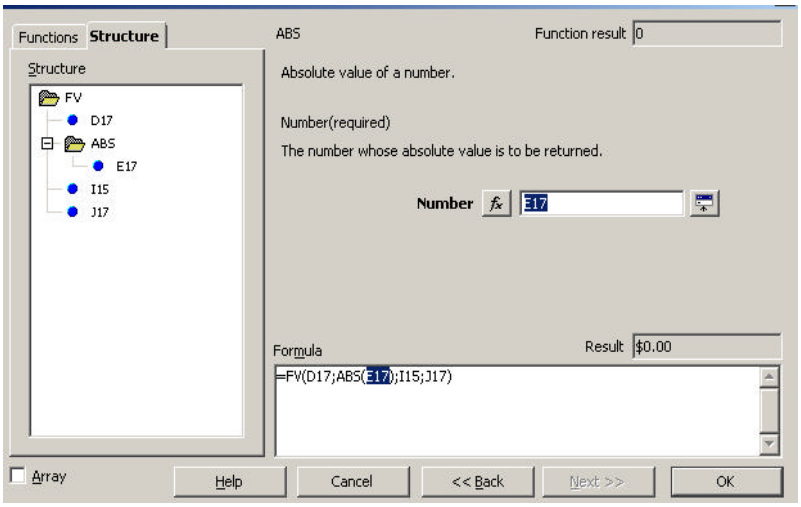


FIGURE 5.1.8.8.2, FUNCTION STRUCTURE

A short description and the correct syntax of the highlighted Formula will be displayed on the right window of the screen.

To select a Formula, highlight the Formula and Double-Click on **that Formula**. Then enter the parameters. If the parameter is a MDT element, you can open the MDT under the MDT Menu, find the relevant item, and manually type in its code in the Formula screen. If the parameter is a cell from the spreadsheet, type the cell reference manually into the Formula screen. See *Figure 5.1.8.8.3.*

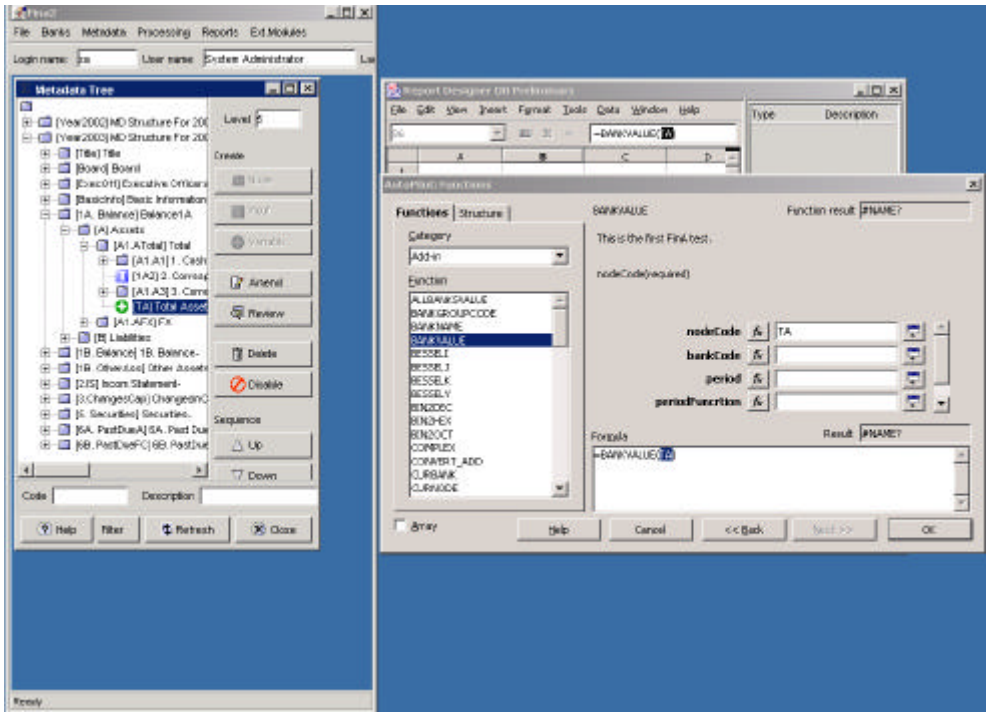


FIGURE 5.1.8.8.3, FUNCTION PARAMETERS

5.1.8.9.Steps Involved in Designing Reports

A report titled “Learning” has the following structure:

Demo Report (header)

	Period 1	Period 2	Period 3
Bank 1	Cash	Cash	Cash
Bank 2	Cash	Cash	Cash
Bank 3	Cash	Cash	Cash

Created for Test Purposes (footer)

Follow the steps below:

1. Open Report Manager **Reports/Report Manager**
2. Highlight on the report tree the place where you would like the new report created. Click on **Create** and the report designer screen opens
3. Enter “Learning” in the **Name** Field
4. Define “Demo Report” as a **header**. To do so type “Demo Report” in any cell you choose (Cell B1 in this example). Move to the row below the one in which you entered the text for the header (in this case it will be Row 2) and Click on **Header**.
5. Define **Row Iterator**. This can be any cell below the Header row (in this example, it is Cell D4). Click on the **Iterator Tab** and then the **Create button** to start the Iterator Wizard. Enter a name for the Iterator, then choose a Row Orientation, Bank Iterator type, on the values screen, you can skip the selection of the specific banks and Click on **Finish**. You can select the banks you would like to appear in the report in the report generation process.
6. Define **Column Iterators**. Follow the steps for the Row Iterator with the following changes: choose column orientation and select Period Iterator for the Iterator type.
7. Define **table titles** for the rows and the columns:
   - To show the Period Numbers as titles for the columns of the report do the following: Move to Cell C4. Click on the **Formula Wizard icon**. Select “PERIODNUMBER” function from the list (highlight and Double-Click or highlight and Click on **Next**. To define the Parameter for the Formula, Click on **the icon for the Parameters Field f_x symbol**. Choose “CURPERIOD” from the list of functions (Double-Click or highlight and Click on **Next**). Click on **OK** to close both the Parameters and Formula Wizards windows. When finished, the Formula should look like: =PERIODNUMBER(CURPERIOD())
   - To show the short name of the Banks as titles for the rows of the report do the following: Move to Cell D3. Follow the steps in the bullet above and enter the following Formula: =CURBANK() and then Click on **OK** to show the short names for the Banks.
8. To show the **value** in the table cells do the following: Move to Cell D4 and enter the following Formula: =BANKVALUE(CURNODE();CURBANK();CURPERIOD();SUM();0) Open the Formula Wizard. Select BANKVALUE from the Functions list. Define the

parameters for the Formula by typing the correct functions from the Functions list in the Parameters field.

9. Specify the **source** for the data: Stay in Cell D4. Click **the Parameter Tab** and the **Create button**. Create a Node-type parameter. On the screen where you are asked to select the item from the MDT, you may do this or you can just Click on **Finish** before making any selection. If you Click on Finish, you will be required to make this choice during the report generation process.
10. Define the **footer**. Type "Created for Test Purposes" in a cell that is at least two rows below the row in which you last entered any kind of information. Then move a row above this cell and Click on **Footer**.
11. **Save** the report by Clicking on the save icon. See Figure 5.1.8.3.1.
12. Close the Report Designer

5.1.8.10. Generate Report

To generate a report, open the Report Manager **Reporting/Report Manager**. Highlight the report you wish to generate and Click on **Generate**. Depending on the type of the report and what was designed during the design of the report, you may be asked to select Banks, Periods, and/or Items from the MDT. After these have been defined, the system starts the generation process and displays the result. Once generated, the report can be printed (Click on **File/Print** menu) or save on an external media/folder (Click on **File/Save as**)

If for some reason there are problems with the calculation of the fields of the report, the following information will be displayed in the error cells:

"NaN" - Means "Not a Number". This appears when the Formula cannot find an item in the set of returns. For instance, if it is looking for item "Total Regulatory Capital" for the month of June 2002, and the return for this period was not submitted/processed, you will get this error message.

"N/A" - Means Not Applicable. An example of such error is when the user wants to generate a report for a single period, or bank, but the fields of the reports are defined with the help of the Iterators. Iterators are not intended for use with single elements.

"Infinity" - Means wrong results in calculation, for instance division by zero.

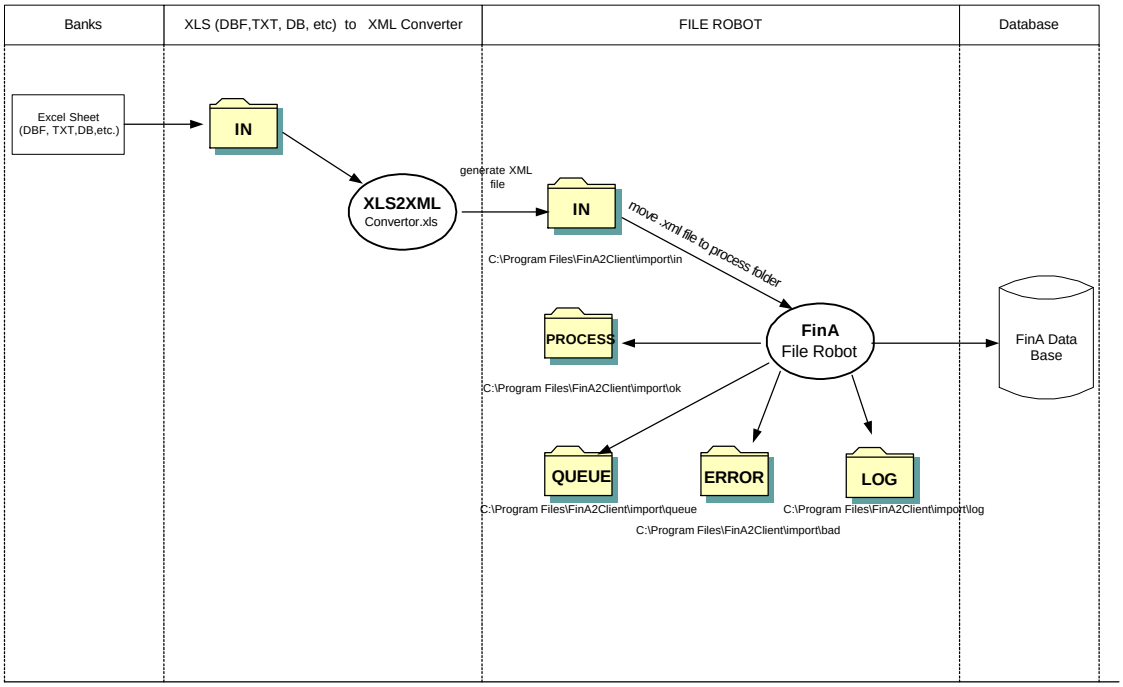
"#VALUE!" Means that a fatal error has occurred during the generation of the report. This happens when the report is damaged or contains some undefined fields and/or symbols.

5.1.8.11. Converting files into the FinA Format

Loading the returns into FinA can be done in two ways either by using the system to create a return and manually entering the data, or by importing an electronic copy of the return. For the latter action a converter is required. A converter must be custom built for each environment because the data conversion is based on the MDT structure. The converter is outside the system and is used to convert the bank returns from the format they are submitted in (i.e., Excel) to the XML format used by FinA.

The converter model is presented in the data flow diagram below.

Return Converter and File Robot



A sample screen shot from the converter is presented on *Figure 5.1.8.11.1*.

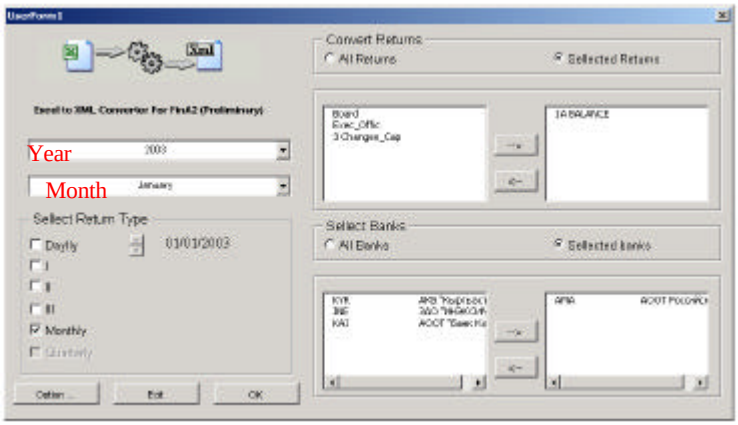


FIGURE 5.1.8.11.1, CONVERTER

To convert the files to FinA XML, move the returns that need to be processed from the left window to the right window in the **Convert Returns** window by using the arrow buttons. In the **Select Banks** window, select the Banks for which the specified returns need to be converted by moving them from the left window to the right window by using the arrow buttons.

Specify the period (i.e., month and the year) by selecting from the drop-down lists in the Year and Month fields.

Check the appropriate box in the Select Return Type window to specify the type of the returns. The options are: Daily, Monthly, Quarterly, and Bi-weekly (**I** stands for the first 10 days of a month, **II** stands for the second 10 days of a month, and **III** stands for the third 10 days of a month)

Once all of the selections have been made Click on **OK**.

The converter completes the process and saves all converted files to the following default directory on the FinA Client computer: C:\Program Files\FinA2Client\Import\In. The source directory as well as the destination directory can be changed by Clicking on the **Options** button on the computer and defining the new location.

Note: if there is a wrong link in the converter—if for example cell A4 is linked to the MDT item with account code CashInFX001 instead of the correct item with code CashInFX002--FinA will not import that return and the following error message will appear: Item CashInFX002 expected, process stopped. To correct this error, find that reference in the converter and correct the account code.

For instructions on how to use the Import and File Robot menu items to load returns that have already be converted to FinA XML, please refer to Chapters 4.2.4, Processing of this manual.